



FCC ID: TQ8-AVN-215TDL / IC: 5074A-AVN215TDLL

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## ATTACHMENT E.

- User Manual -

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**1/1**

# AVN-215TDL

## DIGITAL NAVIGATION SYSTEM

### User's Manual



DIGITAL NAVIGATION SYSTEM

FORTE

User's Manual



## Preface

Thank you for purchasing this Audio Navigation System.

This user manual explains how to use the KIA Motor Audio Navigation System.

Before using the product, read the contents of this user's manual carefully and use the product safely.

- The screens shown in this manual may differ with the actual screens of the product.
- The design and specification of this product may change without prior notification for product improvement.
- When transferring the vehicle to another individual, include this user's manual so that the next driver can continue its use.

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PART 1 PRE-OVERVIEW

**Introduction**

**Important information about this manual**

This user manual contains instructions related to safety. Closely observe and comply with all of the safety instructions found within this manual.

 **WARNING !**

Disobeying the warnings listed within this user's manual may cause fatal or serious injuries. Warnings indicate matters which may directly lead to accidents.

 **CAUTION!**

Disobeying the cautions listed within this user manual may lead to accidents or cause injury. Cautions indicate matters which may lead to vehicle damage or malfunction.

 **INFORMATION**

Information which the user must be aware of allows for more convenient use of the device.

**Precaution for safe usage**

 **WARNING !**

- Do not operate the Audio/Video Navigation system while driving.
- Do not disassemble, assemble, or modify the Audio/Video Navigation system.
- Do not watch the screen for prolonged periods of time while driving.
- Set the volume to a level which allows the driver to be aware of external conditions.

 **CAUTION!**

- Do not operate the Audio/Video Navigation system for prolonged periods of time with the vehicle ignition in ACC. Such operations may lead to battery discharge.
- Be cautious not to spill water or introduce foreign objects into the device.
- Do not cause severe shock to the device. Direct pressure onto the front side of the monitor may cause damage to the LCD or touch panel.

- In case of product malfunction, please contact your place of purchase or service center.
- When cleaning the touch screen, make sure to turn off the device and use a dry and smooth cloth. Never use tough materials, chemical cloths, or solvents (alcohol, ammonia, benzene, thinners, etc.) as such materials may damage the device panel or cause color and quality deterioration.

 **Reference Page**

This indicates the title and page that you should refer to.

 This indicates a button on the control panel.

 **Voice Command**

This indicates an operation by voice command.

## Controller and functions

### Control panel



- 1 Power / Volume control knob
  - Push knob (over 0.8 second) : Turns the power off.
  - Push knob (under 0.8 second) : Each time the knob is pressed, the Audio is turned on and off.
  - Tune knob : The range of volume adjustment is between 0 ~ 35.

- 2 FM/AM button
  - Each press will change the bands in the following order: FM1 → FM2 → AM → FM1

- 3 SAT button
  - Each press will change the bands in the following order : SIRIUS1 → SIRIUS2 → SIRIUS3 → SIRIUS1

- 4 CD/AUX button
  - Each press will change the bands in the following order : DISC(CD, MP3) → (USB or iPod) → (AUX) → DISC(CD, MP3)

PRE-OVERVIEW 1-3

## PART 1 PRE-OVERVIEW

- 5 SEEK/TRACK Up/Down button
  - SHORT KEY(less than 0.8 second)
    - FM/AM Mode : Automatically searches for the previous or next broadcast frequency and starts playing.
    - SAT Mode : Receives the previous or next channel.
    - CD Mode : Plays the previous or next track.
    - MP3, USB Mode : Plays the previous or next file.
    - iPod Mode : Plays the previous or next song.
  - LONG KEY(over 0.8 second)
    - FM/AM Mode : Quickly moves through the frequencies while the button is pressed. Once released, automatically searches for broadcasts which can be received.
    - SAT Mode : Quickly moves to the previous or next channel.
    - CD Mode : REW/FF the current playing track.
    - MP3, USB Mode : REW/FF the current playing file.

- iPod Mode : REW/FF the current playing song.

- 6 TUNE knob
  - FM/AM Mode : Turn the knob to search for the desired frequency. Press the knob to receive the selected frequency.
  - SAT Mode : Turn the knob to search for the desired channel. Press the knob to receive the selected channel.
  - CD Mode : Turn the knob to search for the desired track. Press the knob to play the selected track.
  - MP3, USB Mode : Turn the knob to search for the desired file. Press the knob to play the selected file.
  - iPod Mode : Turn the knob to search for the desired song. Press the knob to play the selected song.

- 7 MAP button
  - Displays the map screen for the current position.

- 8 DEST button
  - Displays the Destination menu screen.

- 9 ROUTE button
  - Displays the Route menu screen.

- 10 SETUP button
  - Displays the Setup menu screen.

- 11 PHONE button
  - Displays the Bluetooth handsfree screen.

**12** DISC insert indicator LED

Displays that a DISC has been inserted.

**13** RESET button

Resets the system - if software locks-up.

**14** DISC Eject button

Eject the inserted disc.

**i** INFORMATION

If pressing the power off knob for over 0.8 second and the system does not shut down, carefully use a straightened paper clip at the access hole shown next to the right DISC indicator LED to reset the software.

The system power will shut-off and restart.

## PART 1 PRE-OVERVIEW

### Steering wheel remote controller

**1** Mode

Each time the mode button is pressed, the mode will convert in the following order: FM1 → FM2 → AM → SIRIUS1 → SIRIUS2 → SIRIUS3 → (DISC) → (USB or iPod) → (AUX) → (Phone Music) → (FM1).

If a not supported DISC has been inserted or if the corresponding unit has not been connected, the mode will not be recognized

and automatically switch to the next mode.

- Press this button for over 0.8 second to turn the Audio ON and OFF.
- Press this button when the Power is turned off to turn the power on.

**2** Seek Up/ Down

- SHORT KEY(less than 0.8 second)
  - FM/AM : Receives the previous or next preset frequency.
  - SIRIUS Mode : Receives the previous or next preset channel.
  - CD Mode : Plays the previous or next track.
  - MP3, USB Mode : Plays the previous or next file.
  - iPod Mode : Plays the previous or next song.

## • LONG KEY(Over 0.8 second)

- FM/AM Mode : Quickly moves through the frequencies while the button is pressed. Once released, it automatically searches for broadcasts which can be received.
- SIRIUS Mode : Quickly moves to the previous or next channel.

- CD Mode : REW/FF the current playing track.
- MP3, USB Mode : REW/FF the current playing file.
- iPod Mode : REW/FF the current playing song.

**3** Volume Up/Down

Increases or decreases the speaker volume within a range between 0 ~ 35.

**4** Voice Recognition button

Starts Voice Recognition.

**5** CALL

Press this key to receive an incoming call. If pressed while in AV/Navigation mode, the Bluetooth handsfree screen will be displayed.

**6** END

Press this key to reject an incoming call. If pressed while on a call, then the call will be ended.

## Basic operation and setting

### Turning the power ON

- ① Turn the ignition key onto ACC or ON. If the system power had been on when the ignition was turned off, the system will turn back on automatically.
- ② If the system power had been off when the ignition was turned off, the system will remain off. In this case, press the **PWR/VOL** knob to turn on the system power.



### **i** INFORMATION

As system booting starts from the point the door lock is unlocked, the device may complete booting before the ACC is turned on or the **PWR/VOL** knob is pressed.

- ③ Once system booting is complete, the most recent operated mode will be displayed. For example, turning on the system will display FM1 radio mode if the last operated mode prior to turning off the system had been FM1 radio mode.

### Turning the power OFF

If the **PWR/VOL** knob is pressed for over 0.8 second, a beep will sound and the system power will be turned off.

### Turning the audio ON/OFF

Press the **PWR/VOL** knob for under 0.8 second with the system power on to turn the Audio on and off.

### **🗣️** Voice Command

1. Press the **🗣️** button on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Audio On"  
"Audio Off"

## PART 1 PRE-OVERVIEW

### **i** INFORMATION

Conducting the following operations while the AUDIO is off will automatically turn on the Audio system.

- Pressing the audio related buttons (**FM/AM**, **SAT**, **CD/AUX**).
- Inserting a DISC or connecting an external device.

### Adjusting audio volume

Turn the **PWR/VOL** knob in clockwise direction to increase the volume and counter-clockwise to decrease the volume.

### **i** INFORMATION

- The range of volume adjustment is between 0 ~ 35.
- Adjustments to the volume cannot be made while the AUDIO is turned off.

### How to operate the screen menu

#### ■ Operating typical screen menu

- If a menu button on the screen is pressed, the corresponding function will be operated.
- The same menu button may perform different functions depending on the length of time the button is pressed (under 0.8 seconds or over 0.8 second).

For more information, refer to the specific function within this user manual.

- The current operated button will be highlighted upon display.
- Buttons which cannot be operated under the current conditions will be displayed in disabled state. Pressing a disabled button will not perform any operation.

#### ■ Inputting letters by using screen keyboard



- ABC** : Displays the English alphabet keypad.
- ACÈ** : Displays the French alphabet keypad. (if available)
- 0-9** : Displays the number and symbol keypad.
- Delete** : Deletes the previous inputted letter. Pressing for over 0.8 second will delete all content.
- List** : The input is completed.
- ↩️** : Restores to previous screen. The inputted text will not be saved.



■ **Displaying the list**



**List** : Even if input is not completed, the current matching items from the database will be displayed.

**i INFORMATION**

The number at the upper-right side of the screen displays the number of current matches.

■ **Selecting an item in a list**

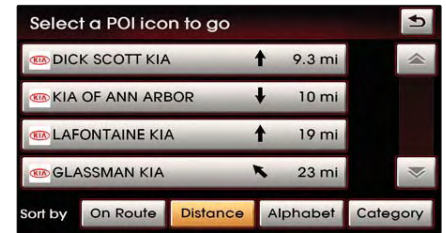


**▲ ▼** : Moves to the next page or previous page.

**< >** : The **>** button will be displayed if the text is too long to be displayed in one button.

- Press the **>** button to move the cursor to the end of the text.
- Press the **<** button to move the cursor to the front of the text.

■ **Sorting items from the list**



Select the desired sorting method to reorganize the list in accordance to the selected method.

**PART 1 PRE-OVERVIEW**

**How to operate menu by voice command**

■ **Condition for voice recognition system**

Most of the functions within the AV and Navigation system can be operated by voice.

Please follow the instructions below for optimal voice recognition performance.

- Close all windows and sunroof.  
The performance of the voice recognition can be improved in quiet environment.
- Press the voice recognition button and say the desired voice command after the sound of the beep.
- The microphone is positioned above the driver so that voice commands can be said while maintaining a proper posture.
- Pronounce the voice commands naturally and clearly as if in normal conversation.

■ **Giving voice command**



① Press the **🗣️** button on the steering wheel remote controller.

A voice command window will be displayed on the lower side of the screen followed by a "Command please" voice comment.

② Once the **🗣️** icon changes into the **🗣️🔊** icon on the pop-up screen with a beep sound, say the desired voice command.

- 🗣️ [Voice command list], page 4-6.
- 🗣️ [Searching a destination by voice command], page 4-20.

**i INFORMATION**

Press the **🗣️** shortly to input the desired voice command. The system voice instruction comment will immediately terminate. When the **🗣️** icon changes into the **🗣️🔊** icon with a beep sound, it is possible to input voice commands.

## Audio sound setting

Press the **Sound** button on the main screen of each AV mode (FM/AM, SIRIUS, CD, MP3, USB, iPod, and AUX) to display the Audio sound setup screen.



### ■ FAD/BAL

The position of the sound can be adjusted by using the up-down and left-right (**▲ ▼**, **◀ ▶**) buttons on the left side of the screen.

Press the **Default** button to position the sound in the center of the vehicle.

### ■ BASS/MID/TREB

The BASS/MID/TREB can be adjusted by using the left/right buttons (**◀**, **▶**) of each control.

### ■ Auto volume control ON/OFF

Each time the **Auto volume control** button is pressed, the Auto volume control function is turned on or off.

### **i** INFORMATION

The Auto volume control is a function which automatically adjusts the volume level in accordance to changes in vehicle speed.

### ■ Touch screen Beep ON/OFF

Each time the **Touch screen beep** button is pressed, the beeping sound that follows each press on the screen will turn on or off.

## PART 1 PRE-OVERVIEW

### Display setting

Press the **SETUP** button on the control panel to display the Setup menu screen.



Press **Display** button to display the Display Setup screen.



### ■ Display mode

Press the button for the desired display mode from **Automatic**, **Daylight**, and **Night** modes. The current selected mode is highlighted.

#### ● **Automatic**

The display is automatically converted between Daylight and Night modes in accordance to the on/off state of the vehicle taillights.

#### ● **Daylight**

The bright screen is always maintained regardless of the on/off state of the vehicle taillights.

#### ● **Night**

The dark screen is always maintained regardless of the on/off state of the vehicle taillights.

### ■ Brightness

Use the left/right buttons (**◀**, **▶**) for control to make adjustments.

### ■ Display OFF

Press the **Display off** button.

### ■ Display ON

Press anywhere on the black screen.

The screen prior to display setting will be displayed.

PART 2 AUDIO SYSTEM

PART 2 AUDIO SYSTEM

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## PART 2 AUDIO SYSTEM

### Operating the radio

#### FM/AM Radio

#### ■ Listening to the FM/AM radio

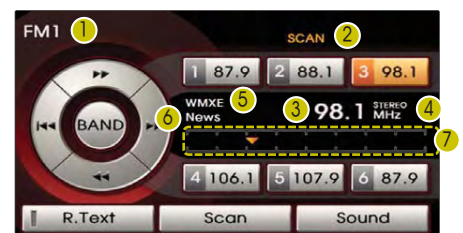


- 1 Press the **FM/AM** button on the control panel. The FM/AM radio band of the most recent listened station will be displayed.
- 2 Press the **FM/AM** button to change the desired radio band. Each press will change the bands in the following order: FM1 → FM2 → AM → FM1
- 3 Select the desired broadcast frequency.  
 [Selecting FM/AM broadcast frequency], page 2-5.

#### Voice Command

1. Press the button on the steering wheel remote controller.
2. After the beep sound, say a command.  
 "Radio"  
 "(Radio) AM"  
 "(Radio) FM"  
 "FM <1 or 2>"  
 "AM Frequency <530 to 1710>"  
 "FM Frequency <87.5 to 107.9>"  
 "AM Preset <1 to 6>"  
 "FM <1 or 2> Preset <1 to 6>"

#### ■ FM/AM screen and functions



- 1 Mode display : Displays the FM1/FM2/AM modes.
- 2 SEEK/SCAN/PRESET SCAN : If SEEK/SCAN/PRESET SCAN is operating, the switch is displayed.
- 3 Frequency : Displays the current playing frequency.

- 4 STEREO indicator : If the current frequency is a stereo broadcast, the indicator is displayed
  - 5 Program Service name: Displays the program service name if data is being broadcasted.
  - 6 Program Type name: Displays the program type name if data is being broadcasted.
  - 7 Frequency bar : Displays the position of the current frequency within the total frequency range.
  - 8 Radio Text: Displays the radio text information if data is being broadcasted.
- g **BAND** button : Changes the desired radio band. Each press will change the bands in the following order: FM1 → FM2 → FM1
  - b c **◀▶** TUNE Up/Down button
    - SHORT KEY(less than 0.8 second)
    - The frequency is increased or decreased by 1-step increments (FM : 0.2MHz, AM : 10kHz).
  - d e **◀▶** SEEK Up/Down button
    - SHORT KEY(less than 0.8 second)
    - Automatically searches for the previous or next broadcast frequency and starts playing.
    - LONG KEY(over 0.8 second)
    - Quickly moves through the frequencies while the button is pressed. Once released, it automatically searches for broadcasts which can be received.
  - f Preset buttons : The desired frequency can be preset and selected.
    - 🔍 [Storing FM/AM presets], page 2-5.
  - g **R.Text** button : Turns the Radio Text information on and off.

### **i** INFORMATION

If the **R.Text** is on OFF state, text will not be displayed even if there is text being transmitted from the broadcast station.

If the **R.Text** is on ON state, the frequency bar will not be displayed. Even if the **R.Text** is on ON state, text may not be displayed if text is not being received from the broadcast station.

- h **Scan** button : Scans all frequencies or just the preset frequencies for 5 seconds each.
  - 🔍 [Scanning FM/AM broadcast frequency], page 2-5.
- i **Sound** button : Adjusts the FAD/BAL, BASS/MID/TREB controls.
  - 🔍 [Audio sound setting], page 1-11.

AUDIO SYSTEM 2-3

## PART 2 AUDIO SYSTEM

### ■ Selecting FM/AM broadcast frequency

There are 3 ways to select the broadcast frequency - (a) selecting through presets, (b) selecting through SEEK, (c) selecting through manual search.

#### (a) Selecting a frequency through presets

Press the preset button of the desired broadcast frequency.

### **i** INFORMATION

- Press the **SEEK ▲** or **SEEK ▼** buttons for a short time on the steering wheel remote controller. The preset frequencies of the current band will be selected in order.
- There are 6 different preset frequencies each for FM1, FM2, and AM modes.
  - 🔍 [Storing FM/AM preset], page 2-5.

### **🔊** Voice Command

1. Press the **🔊** button on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Preset <1 to 6>"
  - "Preset Up"
  - "Preset Down"

#### (b) Selecting a Broadcast frequency through SEEK

Press the **SEEK ▲** or **TRACK ▼** buttons on the control panel or the **◀▶** buttons on FM1, FM2, and AM mode screens for less than 0.8 second. Once the SEEK function is operating (SEEK indicator blinking), the next or previous broadcast frequency with superior reception will be searched automatically.

### **i** INFORMATION

- Press the **SEEK ▲** or **TRACK ▼** buttons on the control panel or the **SEEK ▲** or **SEEK ▼** buttons on the steering wheel remote controller or the **◀▶** buttons on FM1, FM2, and AM mode screens for more

than 0.8 second to quickly move to the nearest desired frequency. Once the button is released, the next frequency with superior reception will be searched automatically.

- While the SEEK function is operating, pressing the **SEEK ▲** or **TRACK ▼** buttons on the control panel again will terminate SEEK operation and select the current frequency.

### **🔊** Voice Command

1. Press the **🔊** button on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Seek Up"
  - "Seek Down"

#### (c) Selecting a broadcast frequency through manual search

Press the **◀▶** buttons or turn the **TUNE** knob on the control panel in clockwise or counter-clockwise direction. Each click on the tune knob or the **◀▶** buttons will increase or decrease the frequency by 1 step (FM: 0.2 MHz, AM: 10 kHz).

### ■ Storing FM/AM presets

- ① Select the desired frequency.
  - 🔊 [Selecting FM/AM broadcast frequency], page 2-4.
- ② Press the preset button to store for over 0.8 second. The frequency will become stored along with a beep sound.

### **i** INFORMATION

Six preset frequencies each for FM1/FM2/AM modes can be stored using the above instructions.

### ■ Scanning FM/AM broadcast frequency

- ① Press the **Scan** button.
  - SCAN (less than 0.8 second) : Scans all frequencies and plays only frequencies with superior reception for 5 seconds each.

### **🔊** Voice Command

1. Press the **🔊** button on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Scan"
  - PRESET SCAN (over 0.8 second): Scans the 6 frequencies stored as preset frequencies in the current band for 5 seconds each.

### **🔊** Voice Command

1. Press the **🔊** button on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Preset Scan"
- ② Press the **Scan** button again to continue listening to a frequency. The scan will be terminated and the current frequency will continue to be played.

### **i** INFORMATION

When scanning has completed an entire revolution, the scan function will be terminated automatically and the previous played frequency will be restored.

## PART 2 AUDIO SYSTEM

### SIRIUS radio

#### ■ Listening to the SIRIUS radio

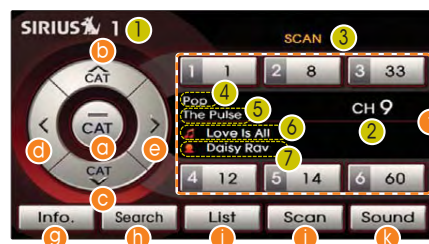


- ① Press the **SAT** button on the control panel. The Sirius radio band screen of the most recent listened station will be displayed.
- ② Press the **SAT** button to change the desired radio band. Each press will change the bands in the following order: SIRIUS1→SIRIUS2→SIRIUS3→SIRIUS1
- ③ Select the desired broadcast channel.
  - 🔊 [Selecting SIRIUS broadcast channel], page 2-7.

### **🔊** Voice Command

1. Press the **🔊** button on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "SIRIUS"
  - "SIRIUS <1 or 2 or 3>"
  - "SIRIUS Channel <0 to 223>"
  - "SIRIUS <1 or 2 or 3> Preset <1 to 6>"

#### ■ SIRIUS screen and functions



- ① Mode display: Displays the SIRIUS1/ SIRIUS2/SIRIUS 3 modes.
- ② Channel number: Displays the current playing channel.
- ③ SCAN/PRESET SCAN indicator: If SCAN/ PRESET SCAN is operating, the switch is displayed.
- ④ Category name: Displays the category name.
- ⑤ Channel name: Displays the channel name.
- ⑥ Song/Program title: Display the song or program title.
- ⑦ Artist name: Displays the artist or other related information.

**i INFORMATION**

The Song title display may be delayed in accordance to the reception quality of the Sirius broadcast.

- a** **CAT** button : Switches between channel mode and category mode.  
 [Switching the SIRIUS modes], page 2-7.
- b** **CAT** , **CAT** : Moves to the next or previous category, and automatically plays the first channel within the selected category.
- d** **e** **<** , **>** : Moves to the next or previous channel.
- f** **Preset** buttons : The desired channel can be preset and selected.  
 [Storing SIRIUS presets], page 2-9.
- g** **Info.** button : Displays the Title, Artist, Composer, and other information for the current received channel if the information exists.
- h** **Search** button: Selects the channel by directly inputting the channel number.  
 [Selecting SIRIUS broadcast channel], page 2-7.

- i** **List** button: Displays the channel or category list.  
 [Selecting SIRIUS broadcast channel], page 2-7.
- j** **Scan** button: Scans all frequencies or just the preset frequencies for 5 seconds each.  
 [Scanning SIRIUS broadcast channel], page 2-10.
- k** **Sound** button : Adjusts the FAD/BAL, BASS/MID/TREB controls.  
 [Audio sound setting], page 1-11.

**■ Switching the SIRIUS modes (Channel / Category)**

Each time the **CAT** button is pressed, the mode will switch between channel mode and category mode. Category mode will begin operating when the orange light is turned ON.

**■ Selecting SIRIUS broadcast channel**

There are 5 ways to select a broadcast channel - (a) selecting through presets, (b) selecting with channel Up/Down, (c) Selecting a channel through manual search, (d) selecting through channel/category list, (e) selecting by directly inputting the channel number.

**(a) Selecting a channel through presets**

Press the preset button of the desired channel.

**i INFORMATION**

- Press the **SEEK ▲** or **SEEK ▼** buttons on the steering wheel remote controller for less than 0.8 second.  
 The preset channels of the current band will be selected in order.
- There are 6 preset channels each for SIRIUS1, SIRIUS2, and SIRIUS3.  
 [Storing SIRIUS presets], page 2-9.

AUDIO SYSTEM 2-7

**PART 2 AUDIO SYSTEM****🔊 Voice Command**

1. Press the **🔊** button on the steering wheel remote controller.
2. After the beep sound, say a command.  
 "Preset <1 to 6>"  
 "Preset Up"  
 "Preset Down"

**(b) Selecting with Channel Up/Down**

Press the **SEEK ▲** or **TRACK ▼** buttons on the control panel or the **<** or **>** buttons on SIRIUS1, SIRIUS2, or SIRIUS3 mode screens for less than 0.8 second.

The previous or next channel will be selected.

**i INFORMATION**

- If in Channel mode, the channel is selected from all channels. If in Category mode, the previous or next channel of each category is selected.
- Press the **SEEK ▲** or **TRACK ▼** buttons on the control panel or the **SEEK ▲** or **SEEK ▼** buttons on the steering wheel remote controller or the **<** or **>** buttons on SIRIUS1, SIRIUS2, and SIRIUS3 mode screens for more

than 0.8 second to quickly move to the nearest desired channel. Once the button is released, the current channel will be selected.

**🔊 Voice Command**

1. Press the **🔊** button on the steering wheel remote controller.
2. After the beep sound, say a command.  
 "Channel Up"  
 "Channel Down"

**(c) Selecting a channel through manual search**

- 1 Turn the **TUNE** knob on the control panel in clockwise or counterclockwise direction. Each click on the **TUNE** knob will display the channel information of the previous or next channel. The current playing channel will continue to be played.

**i INFORMATION**

If in Channel mode, the channel is selected from all channels. If in Category mode, the first channel of each category is selected.

- 2 Press the **TUNE** knob at the desired channel. The selected channel will begin playing.

**(d) Selecting channel through channel/category list**

- 1 Press the **List** button.  
 • If in channel mode, the Channel list screen will be displayed.



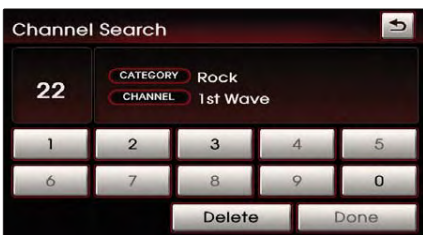
- If in category mode, the Category list screen will be displayed.  
 Select the desired category button to display the channel list screen for the corresponding category.



- 2 Select the desired channel button.  
The previous screen will be restored and the selected channel will begin playing.

#### (e) Selecting channel by directly inputting the channel number

- 1 Press the **Search** button.  
The Channel search screen will be displayed.



- 2 Input desired channel number, and press the **Done** button.

The previous screen will be restored and the selected channel will begin playing.

#### **i** INFORMATION

To prevent inputting a channel which exceeds the channel range, numbers which cannot be inputted are set to disabled state.

#### **Voice Command**

1. Press the **Voice** button on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Channel<0 to 223>"

#### ■ Storing SIRIUS presets

- 1 Select the desired channel.  
[Selecting SIRIUS broadcast channel], page 2-7.
- 2 Press the preset button for over 0.8 second.  
The frequency will be saved along with beep sound.

#### **i** INFORMATION

Six preset frequencies each for SIRIUS1/ SIRIUS2/ SIRIUS3 modes can be stored using the above instructions.

AUDIO SYSTEM 2-9

## PART 2 AUDIO SYSTEM

#### ■ Scanning SIRIUS broadcast channel

- 1 Press the **Scan** button.
- SCAN (under 0.8 second): Scans all channels for 5 seconds each if in channel mode. If in category mode, scans all channels within the current category for 5 seconds each.

#### **Voice Command**

1. Press the **Voice** button on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Scan"
- PRESET SCAN (over 0.8 second): Scans the 6 preset channels within the current band for 5 seconds each.

#### **Voice Command**

1. Press the **Voice** button on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Preset Scan"

- 2 Press the **Scan** button again to continue playing the channel.  
The scan will be terminated and the current channel will continue to play.

#### **i** INFORMATION

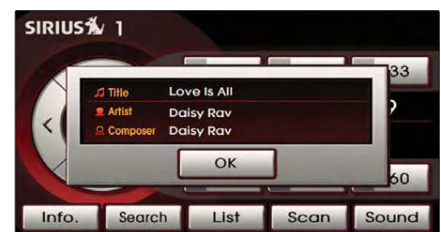
- Within the Channel list screen, if the **Skip** button next to each channel name is pressed, the selected channel will be excluded from SCAN operation.



- When scanning has completed an entire revolution, the scan function is automatically terminated and the previous played channel will be restored.
- Channel 0 is the radio ID and contains information required for SIRIUS activation.

#### ■ Browsing detailed information about the SIRIUS channel

- 1 Press the **Info.** button.  
The detailed information (Title, Artist and Composer) for the current channel will be displayed.



- 2 Press the **OK** button.  
The detailed information will be turned off.



## Operating the CDP

### About CDP

#### ■ Precautions upon handling discs

- After using a disc, keep it in the original case to prevent it from becoming scratched, which may cause the CD to make popping sounds.
- Do not use heart-shaped discs, octagon-shaped discs, or any other abnormally shaped disc. Such discs may be the cause of malfunctions.
- Do not clean discs with chemical solutions such as record sprays, antistatic sprays, antistatic liquids, benzene, or thinners. Such materials may cause the surface of DISC to be unrecoverable.
- Do not expose the disc to direct sunlight for prolonged periods of time. Such exposure may lead to disc deformation.
- Dust, scratch, and other substances may cause popping sound while playing as well as sound deterioration.

- Never place paper on either side of the disc or write on disc surfaces. Sharp writing utensils and inks used in felt-tip pens may cause damage to disc surfaces
- Clean fingerprints and dust off the signal surface (coated side) of the disc with a soft cloth.  
Only soft cloths should be used as there are no grooves for dust to get in as is the case with LPs.
- Copy-protected CDs such as S-type CDs may not function in the device.
- DATA CDs are not supported by the device. (However, such discs may operate abnormally.)

#### ■ For safe and efficient operation

- Do not disassemble the CDP for repair purposes. Contact your place of purchase in the case of malfunction. (Complete service assistance will not be provided if the user disassembles the device.)
- Do not use water to clean the device. Exposure to water may cause damage to the device.

- Be cautious not to introduce foreign substances into the disc insert slot. Foreign substances may cause damage to the interior of the device.
- The device may fail to operate properly in extremely hot or cold temperatures. Discontinue the use of the device unless normal temperature is maintained. (The operational temperature range is: -10°C ~ 65°C).
- Steam can be condensed on the fiberoptic lens due to rain, wet conditions, or upon operating the heating system.
- Skipping may occur to the audio when driving on bumpy roads for prolonged periods of time or upon severe shock to the vehicle.
- Do not use chemical solvent to clean the device. Such solvents may cause damage to the surfaces of the device. Always use a clean and dry cloth.

AUDIO SYSTEM 2-11

## PART 2 AUDIO SYSTEM

### WARNING!

Always give your full attention to driving. Avoid operating your system in such a way that you can be distracted driving vehicle operation.

#### ■ Supported disc formats

- The disc types supported by this device are as shown below.

Disc Size
3-inch (7.6 cm)
5-inch (12.7cm)

Disc format	Disc media	Disc format
CD	CD	CD-DA
	CD-R	MP3
	CD-RW	WMA
	Multisession-CD	DTS-CD
		CD-ROM
		CD-G
		CD-EXTRA
		CD-TEXT
SACD	SACD	
	SACD(Hybrid)	

Disc format	Audio format
CD	LPCM
MP3	MPEG1, Layer3
	MPEG2, Layer3
	MPEG2.5
WMA	Ver9

- CD-R or CD-RW DISC burned with a bulk CD without quality guarantees may not be recognized by the device.
- Inserting an abnormal disc may result in faulty operation or recognition.

### ■ Disc/Content format compatibility

- Ordinary disc compatibility
- This device has been designed/manufactured to be compatible with software bearing the following logo marks.



Audio-CD    CD-R    CD-RW

- CD-R/RW discs (Audio CD and MP3 CD) created with CD-writing devices or personal computers may not properly function in the device. This may be caused by damaged recording method, contamination by dirt and other foreign substance on the disc surfaces or play lens, and various other reasons.
- Special formats or special features regarding software
- CD-R/RW Compatibility.
- This device operates as a CD-ROM including CD-R and CD-RW DISC written in CD Audio or MP3 CD Format.

However, other contents may cause abnormal disc operation such noise.

- The writing of CD-R and CD-RW discs with this device is not supported.
  - Although CD-R/RW discs burned as audio CDs which have not been finalized are not supported by the device, some information such as play time may be displayed.
  - PC-created DISC compatibility.
  - When recording a disc with a personal computer, even discs recorded in a "format compatible" with the formats described above may not operate on the device caused by software settings of the recording application.
- In such cases, contact the software developer.

- Additional information regarding compatibility can be found on the CD-R/RW software disc box.
- DVD-R/RW are not supported by the device.

### ● Compressed audio compatibility

This device plays audio files compressed by MPEG-1 audio stream layer 3(MP3) using 32, 44.1 and 48kHz fixed bit rates. Incompatible files are not supported.

- Variable bit rate files may operate, but the play time information may not be properly displayed.
- Physical formats of CD : Model 1, Model 2 XA format 1.
- This device only supports tracks with file extension of ".MP3" or ".WMA".
- This device does not support multi-session discs.
- This device supports a maximum of 256 folders and maximum 512 files. Folders and files which exceed this limit will not be supported.
- There are various bit rates which can be encoded onto a MP3 file. This device has been designed to be compatible with various bit rates. Audio which has been encoded at 128kbps will sound similar to CD audio sound quality.

AUDIO SYSTEM 2-13

## PART 2 AUDIO SYSTEM

Although this device supports low bit rate MP3 tracks, such tracks may only provide low quality sound.

- For stable operation, the use of files in 95kbps ~ 192kbps bit rate range and 44.1kHz SAMPLING frequency is recommended.

### Inserting/Ejecting Disc

#### ■ Inserting a Disc

Insert the disc into the slot.

The disc will begin playing automatically after it has been inserted.

#### **i** INFORMATION

If the operation mode had been Audio mode before inserting the disc, the device will convert to the DISC mode screen and begin playing.

If the operation mode had been Navigation mode, then Navigation mode screen will remain and the disc play status will be displayed through the Audio bar.

#### ■ Ejecting a Disc

Press the  button.

The disc will immediately be stopped and ejected.

#### **i** INFORMATION

- If the operation mode had been in Audio mode before ejecting the disc, the device will be converted back to Audio mode. If the operation mode had been in Navigation mode, then Navigation mode screen will remain.
- If the disc is straddled on the slot without removing for approximately 10 seconds, the disc will be re-inserted automatically into the disc player. In such a case, the disc will not begin playing automatically.

## CD

### ■ Listening to CD music



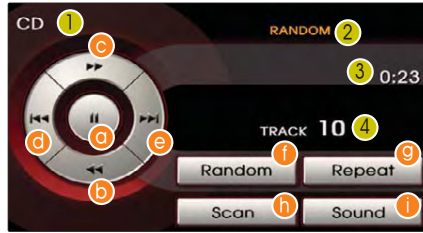
① Insert the CD or press the **CD/AUX** button on the control panel if the CD is already inserted.

② Select the desired track.  
 [Selecting the CD track], page 2-16.

### Voice Command

- Press the button on the steering wheel remote controller.
- After the beep sound, say a command.  
 "DISC"  
 "CD"  
 "CD Track <1 to 665>"

### ■ CD screen and functions



- Mode display** : Displays that the current mode is CD mode.
  - RANDOM/REPEAT/SCAN indicator** : If RANDOM/REPEAT/SCAN is operating, the switch is displayed.
  - Play time** : Displays the play time.
  - Track number** : Displays the current playing track number.
- button : Plays or pauses the current track.
  - button : REW or FF  
 [Selecting the CD track], page 2-17.
  - button : Previous or next track.

[REW/FF CD track], page 2-17.

**f** **Random** button : Plays the tracks on the disc in random order.

[Setting Random function for CD music], page 2-17.

**g** **Repeat** button : Repeats the current playing track.

[Setting Repeat function for CD music], page 2-18.

**h** **Scan** button : Scans all tracks on the disc for 10 seconds each.

[Scanning CD track], page 2-18.

**i** **Sound** button : Adjusts the FAD/BAL, BASS/MID/TREB controls.

[Audio sound setting], page 1-11.

## PART 2 AUDIO SYSTEM

### ■ Selecting the CD track

There are 2 ways to select a CD Track - (a) selecting through Track Up/Down, (b) selecting through searching Track.

#### (a) Selecting through Track Up / Down

Press the **SEEK ▲** or **TRACK ▼** buttons on the control panel or the **SEEK ▲** or **SEEK ▼** buttons on the steering wheel remote controller or the or buttons on the screen for less than 0.8 second. The next or previous track will begin playing.

#### INFORMATION

If the **TRACK ▼** button on the control panel or the **SEEK ▲** button on the steering wheel remote controller or the button on the screen is pressed shortly while the track has played for more than 3 seconds, the start of the current track will begin playing.

If the track has been playing for less than 2 seconds, the start of the previous track will begin playing.

### Voice Command

- Press the button on the steering wheel remote controller.
- After the beep sound, say a command.  
 "Next Track"  
 "Previous Track"

#### (b) Selecting track through search

① Turn the **TUNE** knob on the control panel in clockwise or counter-clockwise direction.

Each click on the **TUNE** knob will display the information of the next or previous track. The current playing track will continue to be played.

② Press the **TUNE** knob at the desired track.  
 The searched track will begin playing.

### ■ REW/FF CD track

Press and hold the **SEEK ▲** or **TRACK ▼** buttons on the control panel or steering wheel remote controller or the or buttons for over 0.8 second.

The track will play 20 times faster while holding the button and return to normal play when the button is released.


### ■ Setting Random function for CD music

Press the **Random** button.


Each press will change the function in the following order: RANDOM → RANDOM OFF → RANDOM

\*RANDOM : plays all tracks in the disc in random order.


### Voice Command

1. Press the  button on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Random"  
Say "Random" or "Random Folder" again or say "Normal Play" in order to terminate the set Random function.


### ■ Setting Repeat function for CD music

- Press the  button. Each press will change the function in the following order: REPEAT → REPEAT OFF → REPEAT
- \* REPEAT : repeats the current playing track.



### Voice Command

1. Press the  button on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Repeat Track"  
Say "Repeat File" or "Repeat Folder" again or say "Normal Play" in order to terminate the set Repeat.

### ■ Scanning CD track

- ① Press the  button. Each press will change the function in the following order: SCAN → SCAN OFF → SCAN.  
\* SCAN : Scans all tracks in the disc for 10 seconds each.

### Voice Command

1. Press the  button on the steering wheel remote controller.
  2. After the beep sound, say a command.  
"Scan"  
Say "Normal Play" in order to terminate the set Scan function.
- ② Press the  button again to continue listening to the track.  
The scan will be terminated and the current track will continue to be played.

### INFORMATION

When scanning has completed an entire revolution, the scan function is automatically terminated and the previous played track will be restored.

AUDIO SYSTEM 2-17

## PART 2 AUDIO SYSTEM

### MP3

#### ■ MP3 disc related information and precaution

- Information
  - The MP3 file standards supported by the device are as follows.
  - Acceptable standard: MPEG1 AUDIO LAYER 3
  - Acceptable sampling frequency: 32, 44.1, 48 (KHz)
  - Acceptable bit rate: 32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 (kbps)
  - Recommended bit rate & reference sampling frequency: 96,128, 192 kbps fixed bit rate /44.1KHz
  - ID3 tag

This device supports ID3v1.0, ID3v1.1, ID3v2.2, ID3v2.3, and ID3v2.4 ID3 tags.

- Supported media

The MP3 media supported by the device are CD-ROM and USB.

- Supported media formats  
This device supports ISO9660 LEVEL1 and LEVEL2. Detailed specification is as below.
- Maximum directory layers: 8 layers
- Maximum folder length: 64 Bytes, file name length: 64 Bytes
- Supported characters for folder name/ file name: Alphanumeric characters, Korean standard character set 2350 characters, Simplified Chinese 4888 characters
- Maximum number of folders which can be stored onto one disc: 256 folders (including ROOT directory)
- Maximum number of files which can be stored onto one disc: 512 files
- Precautions upon burning MP3 files
- The use of ISO 9660 LEVEL 2 JULIET format is recommended when burning MP3 files. Burning in other formats may abnormally display the file names.
- It is possible to display up to 32 characters for file and folder names in case of UNICODE, and up to 64 characters in case of ASCII.

Although the full length of the file name can be displayed by using the scroll function, the full length of folder names may not be displayed as the scroll function does not operate when displaying folder names.

- Precaution  
Please use an MP3 bit rate which is less than 128 kbps.  
The sound quality cannot be guaranteed for MP3s exceeding 128kbps.

## ■ Listening to MP3 music



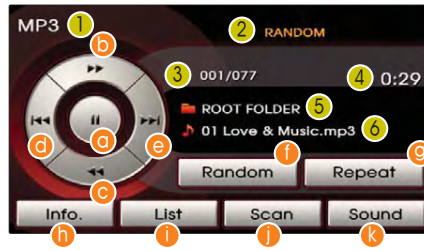
① Insert the MP3 disc or press the **CD/AUX** button on the control panel if the MP3 disc is already inserted.

② Select the desired file.  
 [Selecting the MP3 file], page 2-21.

### Voice Command

- Press the button on the steering wheel remote controller.
- After the beep sound, say a command.  
 "DISC"  
 "CD"  
 "MP3"

## ■ MP3 screen and functions



- 1** Mode display: Displays that the current mode is MP3 disc mode. (MP3 files on DVDs are not supported.)
- 2** REPEAT/RANDOM/SCAN indicator: If REPEAT/RANDOM/SCAN is operating, the switch is displayed.
- 3** Play file position : Current playing file / total files
- 4** Play time: Displays the play time.
- 5** Folder name: Displays the folder name.  
File name: Displays the file name.

**a** button: Plays or pauses the current file.

**b c** button : REW or FF.  
 [REW/FF MP3 file], page 2-22.

**d e** button : Previous or next track.

[Selecting the MP3 file], page 2-21.

**f** **Random** button : Plays all files on the disc or folder in random order.  
 [Setting Random function for MP3 file] , page 2-22.

**g** **Repeat** button : Repeats the current playing folder or file.  
 [Setting Repeat function for MP3 file], page 2-23.

**h** **Scan** button : Scans all files on the disc or folder for 10 seconds each.  
 [Scanning MP3 file], page 2-23.

**i** **List** button : Displays the MP3 folders and file lists for the disc.  
 [Selecting the MP3 file], page 2-21.

**j** **Info.** button : Displays or hides the detailed file information for the current playing file.  
 [Browsing detailed information about the MP3 file], page 2-22.

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## PART 2 AUDIO SYSTEM

**k** **Sound** button : Adjusts the FAD/BAL, BASS/MID/TREB controls.  
 [Audio sound setting], page 1-11.

### ■ Selecting the MP3 file

There are 3 ways to select an MP3 file - (a) selecting through file up/down, (b) selecting through searching files, (c) selecting through MP3 list.

#### (a) Selecting through File Up / Down

Press the **SEEK ▲** or **TRACK ▼** buttons on the control panel or the **SEEK ▲** or **SEEK ▼** buttons on the steering wheel remote controller or the or buttons on the screen for less than 0.8 second.

The next or previous file will begin playing.

#### INFORMATION

If the **TRACK ▼** button on the control panel or the **SEEK ▼** button on the steering wheel remote controller the button on the screen is pressed shortly while the file has played for more than 3 seconds, the start of

the current file will begin playing.

If the file has been playing for less than 2 seconds, the start of the previous file will begin playing.

### Voice Command

- Press the button on the steering wheel remote controller.
- After the beep sound, say a command.  
 "Next File"  
 "Previous File"  
 "Next Folder"  
 "Previous Folder"

#### (b) Selecting through search

① Turn the **TUNE** knob on the control panel in clockwise or counter-clockwise direction.

Each click on the **TUNE** knob will display the information of the next or previous file. The current playing file will continue to be played.

#### INFORMATION

If the operation of the **TUNE** knob is too rapid, there may be a delay in displaying the file information.

② Press the **TUNE** knob at the desired file.  
 The searched file will begin playing.

#### (c) Selecting through MP3 List

① Press the **List** button.

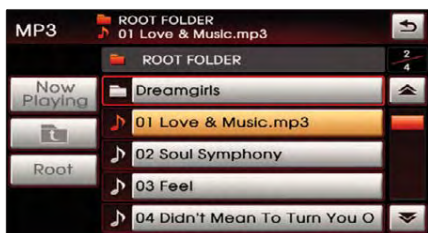
The file list of the folder for the current playing file will be displayed.

#### INFORMATION

- If many songs and folders are recorded onto a DISC, file loading time may be longer and cause the play list to be improperly displayed or song search through TUNE operation to operate improperly.

In such cases, wait until file loading is complete and try again.

- Within the MP3 list screen, if the **Now playing** button is pressed while searching for files within a folder or a page, the current playing file list will become displayed.



- Press the desired menu to return to the main screen and play the selected file.

### REW/FF MP3 file

Press and hold the **SEEK ^** or **TRACK V** buttons on the control panel or the **SEEK ^** or **SEEK V** buttons on the steering wheel remote controller or the **◀** or **▶** buttons for over 0.8 second.

The file will play 20 times faster while holding the button and return to normal play when the button is released.

### Browsing detailed information about the MP3 file

- Press the **Info.** button.

The detailed information (Title, Album, Artist) for the current playing MP3 will be displayed.



- Press the **OK** button.

The detailed information will be turned off.

### Setting Random function for MP3 file

Press the **Random** button.

- \* **RANDOM** (less than 0.8 second) : Plays all files in the disc in random order
- \* **FOLDER RANDOM** (over 0.8 second) : Plays the files in the current folder in random order.

### Voice Command

- Press the **Voice** button on the steering wheel remote controller.

- After the beep sound, say a command.

"Random"

"Random Folder"

Say "Random" or "Random Folder" again or say "Normal Play" in order to terminate the set Random function.

- Press the **Random** button again to continue listening to the current file.

The random selection will be terminated and the current file will continue to play.

## PART 2 AUDIO SYSTEM

### Setting Repeat function for MP3 file

- Press the **Repeat** button.

\* **REPEAT** (less than 0.8 second) : Repeats the current playing file

\* **FOLDER REPEAT** (over 0.8 second) : Repeats the files in the current folder

### Voice Command

- Press the **Voice** button on the steering wheel remote controller.

- After the beep sound, say a command.

"Repeat File"

"Repeat Folder"

Say "Repeat File" or "Repeat Folder" again or say "Normal Play" in order to terminate the set Repeat function.

- Press the **Repeat** button again to stop repeating the current file.

The repeat selection will be terminated and the current file will continue to play once until the next file starts to play.

### Scanning MP3 file

- Press the **Scan** button.

\* **SCAN** (less than 0.8 second) : Scans all files in the disc and plays for 10 seconds each.

\* **FOLDER SCAN** (over 0.8 second) : Scans all files in the current folder for 10 seconds each.

### Voice Command

- Press the **Voice** button on the steering wheel remote controller.

- After the beep sound, say a command.

"Scan"

"Folder Scan"

Say "Normal Play" in order to terminate the set Scan function.

- Press the **Scan** button again to continue listening to the file.

The scan selection will be terminated and the current file will continue to play.

### INFORMATION

When scanning has completed an entire revolution, the scan function is automatically terminated and the previous played file will be restored.

## Operating the external devices

### iPod®

iPod® is a registered trademark of Apple Inc.

#### ■ Connecting iPod devices

Connect the iPod device as shown in the picture.



The identification of the iPod device, battery recharge, and other functions provided by the iPod device can be normally supported only by using a separated sold iPod connector cable.

If the USB cable provided upon purchasing the iPod for charging is used as the connector cable, the device will be recognized as a USB

and may not properly operate or display all of the display information.

- Supported iPod devices : iPod 3G, iPod 5G, 5.5G, iPod Mini, iPod Nano 1G, 2G.

If iPod mode cannot be entered due to identification error, no track, incompatible protocol version, or other reasons, a pop-up message "No Media Connected" will be displayed for 5 seconds and return automatically to the previous mode.

If the message continues even after reconnecting the iPod, check to see if there are any problems with the iPod device.

#### ⚠ CAUTION

If a playing iPod is connected to the audio system, a high-pitched tone may occur for approximately 1-2 seconds.

Please turn the iPod device to pause/stop prior to connecting it to the vehicle.

#### ■ Listening to music from iPod



- 1 Connect the iPod or press the **CD/AUX** button on the control panel if the iPod is already connected.

#### i INFORMATION

Even if the iPod is connected, the 'No Media Connected' message may be displayed if an error has occurred. In such a case, reconnect the iPod.

- 2 Select the desired song.
  - ⓘ [Selecting music from iPod], page 2-26.

## PART 2 AUDIO SYSTEM

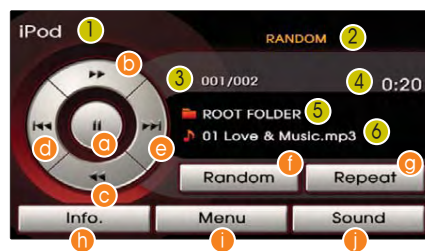
### i INFORMATION

An iPod cable assembly can be purchased at your local KIA dealer.

#### 🔊 Voice Command

1. Press the **Voice** button on the steering wheel remote controller.
2. After the beep sound, say a command. "iPod"

#### ■ iPod screen and functions



- 1 Mode display: Displays that the current mode is iPod mode.
  - 2 RANDOM/REPEAT indicator: If RANDOM/REPEAT is operating, the switch is displayed.
  - 3 Play file position: Current playing file / total files
  - 4 Play time: Displays the play time.
  - 5 Category name: Displays the category name of the playing file.
  - 6 Title name: Displays the title name of the playing file.
- c** **▶** **⏸** button : Plays or pauses the current file.

- b c** **◀** **▶** button : REW or FF.  
 ⓘ [REW/FF iPod music], page 2-27.
- d e** **◀** **▶** button : Previous or next track.  
 ⓘ [Selecting music from iPod], page 2-26.
- f** **Random** button : Plays all music in the current playing list in random order or randomly in album unit.  
 ⓘ [Setting Random function for iPod music], page 2-27.
- g** **Repeat** button: Repeats the current playing music.  
 ⓘ [Setting Repeat function for iPod music], page 2-28.
- h** **Menu** button : Converts to the category menu screen.  
 ⓘ [Selecting music from iPod], page 2-26.
- i** **Info.** button : Displays or hides the detailed file information for the current playing file.  
 ⓘ [Browsing detailed information about the iPod music], page 2-28.
- j** **Sound** button : Adjusts the FAD/BAL, BASS/MID/TREB controls.  
 ⓘ [Audio sound setting], page 1-10.

### ■ Selecting music from iPod

There are 3 ways to select songs from the iPod device - (a) selecting song through Up/Down, (b) selecting song through sequential search, (c) selecting song through menu.

#### (a) Selecting song through Up / Down

Press the **SEEK ▲** or **TRACK ▼** buttons on the control panel or the **SEEK ▲** or **SEEK ▼** buttons on the steering wheel remote controller or the **⏮** or **⏭** buttons on the screen for less than 0.8 second. The next or previous song will begin playing.

#### **i** INFORMATION

If the **TRACK ▼** button on the control panel or the **SEEK ▼** button on the steering wheel remote controller or the **⏮** button on the screen is pressed shortly while the song is playing for more than 3 seconds, the start of the current song will begin playing. If the song has been playing for less than 2 seconds, the start of the previous song will begin playing.

### **🔊** Voice Command

1. Press the **🔊** button on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Next Song"  
"Previous Song"

#### (b) Selecting song through search

- ① Turn the **TUNE** knob on the control panel in clockwise or counter-clockwise direction. Each click on the **TUNE** knob will display the information of the next or previous song. The current playing song will continue to be played.

#### **i** INFORMATION

If the operation of the **TUNE** knob is too rapid, there may be a delay in displaying the song information.

- ② Press the **TUNE** knob at the desired song.  
The searched song will begin playing.

#### (c) Selecting song through Menu

- ① Press the **Menu** button.  
The iPod menu screen will be displayed.



- ② Press the button for the desired search method.

#### **i** INFORMATION

If the search mode is accessed while playing a song, the most recent searched step will be displayed. The search steps upon initial connection are listed below.

## PART 2 AUDIO SYSTEM

	1 Step	2 Step	3 Step	4 Step
Playlist	Playlist	Song		
Genre	Genre	Artist	Album	Song
Artist	Artist	Album	Song	
Composer	Composer	Album	Song	
Album	Album	Song		
Audiobooks			Song	
Songs			Song	
Podcasts	Program	Episode		



- ③ Press the desired song button to return to the main screen and play the selected song.

### ■ REW/FF iPod music

Press and hold the **SEEK ▲** or **TRACK ▼** buttons on the control panel or the **SEEK ▲** or **SEEK ▼** buttons on the steering wheel remote controller or the **⏮** or **⏭** buttons for over 0.8 second.

The song will play 20 times faster while holding the button and return to normal play when the button is released.

### ■ Setting Random function for iPod music

- ① Press the **Random** button.
- \* RANDOM (less than 0.8 second) : Plays all files in the current playing list in random order.
  - \* ALBUM RANDOM (over 0.8 second) : Plays the songs in the current playing list randomly in Album units.

### **🔊** Voice Command

1. Press the **🔊** button on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Random"  
"Random Album"  
Say "Random" or "Random Album" again or say "Normal Play" in order to terminate the set Random.
- ② Press the **Random** button again to continue listening to the current song. The random selection will be terminated and the current song will continue to play.




### ■ Setting Repeat function for iPod music

① Press the **Repeat** button.

Each press will change the function in the following order: REPEAT ; REPEAT OFF ; REPEAT

\* REPEAT : Repeats the current playing song.

### 🔊 Voice Command

1. Press the  button on the steering wheel remote controller.

2. After the beep sound, say a command. "Repeat Song"

Say "Normal Play" in order to terminate the set Repeat function.

### ■ Browsing detailed information about the iPod music

① Press the **Info.** button.

The detailed information (Title, Album and Artist) for the current channel will be displayed.



② Press the **OK** button.

The detailed information will be turned off.

## PART 2 AUDIO SYSTEM

### USB

#### ■ USB MP3 related information and precaution

##### ● Information

- The MP3 file standards supported by the device are as follows.
- Acceptable standard: MPEG1 AUDIO LAYER 3
- Acceptable sampling frequency: 32, 44.1, 48 (kHz)
- Acceptable bit rate : 32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 (kbps)
- Recommended bit rate & reference sampling frequency: 96,128, 192 kbps fixed bit rate /44.1kHz
- ID3 tag

This device supports ID3v1.0, ID3v1.1, ID3v2.2, ID3v2.3, and ID3v2.4 ID3 tags.

- Supported media

The MP3 media supported by the device are CD-ROM and USB.

##### • Supported media formats

This device supports ISO9660 LEVEL1 and LEVEL2. Detailed specification is as below.

- Maximum directory layers: 20 layers
- Maximum length of folder name/file name: 250Bytes
- Supported characters for folder name/ file name: Alphanumeric characters, Korean standard character set 2350 characters, Simplified Chinese 4888 characters
- Maximum number of folders which can be stored onto one USB: 2000 folders (including ROOT directory)
- Maximum number of files which can be stored onto one USB: 6000 files
- Precautions upon formatting USB & downloading MP3 files
- The device only supports FAT type USB file system. The device will not play USB media content if the USB is NTFS type.

##### ● Precaution

Please use an MP3 bit rate which is less than 192kbps and a fixed bit rate.

The sound quality cannot be guaranteed for

MP3s exceeding 192Kbps and operation of specific functions (limited to FF/REW functions) may be abnormal with variable bit rates.

#### ■ Precautions upon handling USB

- When using the external USB device, make sure to keep the device disconnected and connect only some time after turning on the vehicle ignition. The USB device may be damaged if the USB device already connected when the ignition is turned on. (USB device is not an electronic automotive component)
- The external USB device may not operate if the USB device already connected when vehicle ignition is turned on or off.
- The device will not operate when playing a format which is not MP3 or WMA file formats.

① Only MP3 files with compression rates between 8kbps~320kbps are supported.

- ② Only WMA files with compression rates between 8kbps~320kbps are supported.
- Be cautious of static electricity when connecting/disconnecting the external USB device.
- Encoded MP3 Players will not be recognized when connected as the external device.
- When connecting an external USB device, the device may not properly recognize the USB when the USB is in some states.
- When formatting the external USB device, the device may not properly be properly recognize a Byte/Sector selection other than 512Byte or 2048Byte.
- The device will only recognize USB devices formatted in FAT 12/16/32.
- Some USB devices may not operate properly because of compatibility issues. Verify that the external device is supported by the device before starting use.
- Avoid contact between the USB connector with bodily parts and foreign substances.

- Repeatedly connecting/disconnecting the USB in a short period of time may cause damage to the device.
- When disconnecting the USB, an abnormal sound may occur occasionally.
- Abruptly disconnecting the external USB device while the USB is operating may cause the device to be damaged or function abnormally.  
Make sure to disconnect the USB device only after the audio power is turned off or when the audio is operating in a different mode.
- The amount of time required to recognize the external USB device may differ depending on the type, size, or file formats stored on the USB.  
Such differences in the required time are not indications of malfunction. Please wait for the required period of time to recognize the device.
- The device supports only USB devices used to play music files.

- Do not use the USB I/F to charge batteries or USB accessories which generate heat. Such acts may lead to deteriorated performance or damage to the device.
- The device may not recognize the USB device if separately purchased USB hubs and extension cables are being used. Connect the USB directly to the multimedia terminal of the vehicle.
- In the case of high capacity USB devices, there are instances where the logical drives are partitioned for user convenience. In this case, only the USB music in the top-level logical drive will be possible to play. When using partitioned drives, save the desired songs to play on the device only in the top-level logical drive.  
In addition, certain USB devices are configured with a separate drive used to install application programs and songs from such drives may not be possible to play for the reasons as described above.

## PART 2 AUDIO SYSTEM

- The device may not support normal operation if MP3 Players, cellular phones, digital cameras, or other electronic devices (USB devices not recognized as portable disk drives) are connected to the device.
- The device may not support normal operation when using a USB memory type besides the Metal Cover Type USB Memory.
- The device may not support normal operation when using formats such as HDD Type, CF, or SD Memory.
- The device will not support files locked by DRM (Digital Rights Management).
- The device may not support. Please make sure to use normal operation if the proper connection with the USB memory fails due to vibrations caused by the vehicle. (i-stick type, etc.)
- Please avoid using USB memory products which can be used as key chains or cellular phone accessories as they could cause damage to the USB jack.

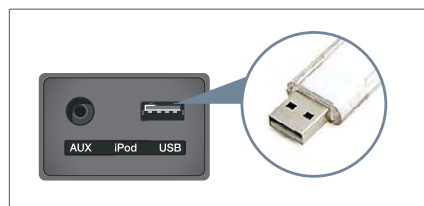
Please make certain only to use plug type connector products as shown below.

Plug Type Connector



### ■ Connecting the USB devices

Connect the USB as shown in the picture.



### ■ Listening to USB music




- ① Connect a USB or press the **CD/AUX** button on the control panel if the USB is already connected.

- ② Select the desired file.  
🔍 [Selecting the MP3 file], page 2-21.

### **i** INFORMATION

The USB screen and operation method is the same with MP3 mode. Please refer to the MP3 mode section for more information.

### Voice Command

1. Press the  button on the steering wheel remote controller.
2. After the beep sound, say a command. "USB"

## AUX

### ■ Connecting AUX

Connect the external Audio player as shown in the picture.




### INFORMATION


Connect only by using AUX terminals.

### ■ Playing AUX



Connect an AUX or press the  button on the control panel if the AUX is already connected.

### Voice Command

1. Press the  button on the steering wheel remote controller.
2. After the beep sound, say a command. "Line In"

AUDIO SYSTEM 2-31

## PART 2 AUDIO SYSTEM

### ■ AUX screen



Audio AUX screen

## PART 3 NAVIGATION SYSTEM

### PART 3 NAVIGATION SYSTEM

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## PART 3 NAVIGATION SYSTEM

### Limitations of the navigation system

#### GPS signal reception state

- As the GPS satellite frequency is received /transmitted in straight lines, reception may not work if hiding devices are placed on or near the GPS antenna or when traveling through the following locations.



- Tunnels



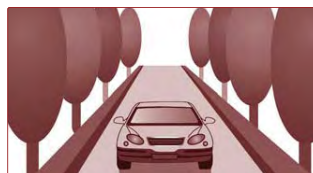
- Basement parking structures



- Underneath an overpass



- Roads within canyons



- Roads within forested areas



- Areas near high rise buildings

### Vehicle position display

- If multipass errors occur due to reflections from buildings or related causes, the current position mark on the navigation may differ from the actual position of the vehicle.
- The position of the vehicle on the navigation may be different from the actual position if the vehicle is under the following conditions. If such differences occur, driving for a short period of time will automatically correct the position of the vehicle through map matching or GPS information (several minutes may be necessary in certain cases).
  - When driving on a Y-shaped road with a narrow angle, the current position may be displayed in the opposite direction.
  - If the vehicle is loaded onto a ferry or a car transport vehicle, the current position mark may be stalled on the last position prior to loading.
- When driving on a spiral-shaped road.
- When driving in mountain regions with sharp turns or sudden brakes.
- When entering a road after having been in an underground parking structure, building parking structure, or turntable with many rotations.
- When the tires have recently been replaced (Especially upon use of spare or studless tires)
- If the battery terminal is removed.
- When driving in city streets, the current position may be displayed on the opposite side or on an off-road position.
- When changing the zoom level from the maximum zoom in level to a different zoom level, the current position mark may be displayed on a different road.
- When driving in heavy traffic with frequent go · stops in traffic or intersections.
- When driving under slippery conditions, such as heavy sand, snow, etc.
- When driving with the tire chain in place.
- When using a tire with an incorrect size specification.
- When the tire pressure for the 4 tires are different.
- When the replacement tire is a worn or used tire (Especially studless tires having passed a 2nd seasons, etc.)
- When driving near high-rise buildings
- If a roof carrier has been installed
- When driving under high speeds or having calculated a long-distance route.

## PART 3 NAVIGATION SYSTEM

### Route Guidance

- Suitable route guidance may not occur caused by search conditions or the driving position.
- Guidance to go straight may be given while driving on a straight road.
- Guidance may not be given even when having turned at an intersection.
- There are certain intersections in which guidance may not occur.
- A route guidance signaling for a U-Turn in a No U-Turn location may occur.
- A route guidance signaling entrance into a no enter zone may occur (No enter zone, road under construction, etc.).
- Guidance may be given to a position removed from the actual destination if roads to reach the actual destination do not exist or are too narrow.
- Faulty voice guidance may be given if the vehicle breaks from the designated route (ex: if a turn is made at an intersection while the navigation provided guidance to go straight).
- Map Data may be missing or incorrect causing route guidance to not be given.

### Route Re-calculation

- The following phenomena may occur after conducting route recalculation.
- Guidance may be given to a position differing from the current position when turning at an intersection.
- Route Recalculation may take a longer period of time when driving under high speeds.
- A route guidance signaling for a U-Turn in a No U-Turn location may occur.
- A route guidance signaling entrance into a no enter zone may occur (No enter zone, road under construction, etc).
- Guidance may be given to a position removed from the actual destination if roads to reach the actual destination do not exist or are too narrow.
- Faulty voice guidance may be given if the vehicle breaks from the designated route (ex: if a turn is made at an intersection while the navigation provided guidance to go straight)

## Starting navigation system



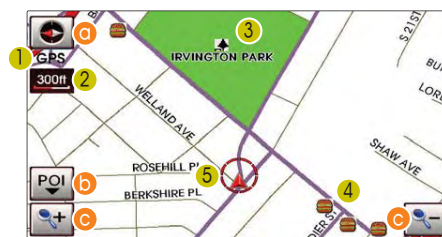
Press the Navigation mode key (MAPVOICE, DEST, ROUTE, SETUP). The Caution screen will always be displayed when first entering into Navigation mode. Read the contents of the caution screen carefully and press the **Agree** button.

## Map Functions

### Current position map screen (without route)



Press the **MAPVOICE** key on the control panel to display the map of current position and the neighboring area.



- 1 GPS signal state indicator : Displays the state of GPS signal reception.  
📍 [Viewing GPS signal state], page 3-7.
- 2 Map scale level indicator : Displays the current map scale.  
📏 [Changing the map scale], page 3-8.
- 3 Landmark icons : Landmark icons are displayed on the map when the map scale level is set to under 300 ft (100m depending on map data)  
📍 [Appendix : Landmark icons], page 7-11.
- 4 POI icons : POI icons are displayed on the map when the map scale level is set to under 0.5 mi (800m).  
📍 [Appendix : POI icons], page 7-8.
- 5 Current vehicle position icon : Displays the current position of the vehicle.

## PART 3 NAVIGATION SYSTEM

- a North Up / Heading Up switch : Displays the current map mode and the map mode can be switched between North Up and Heading Up.  
📍 [Switching map mode], page 3-6.
- b POI : Displays or hides the POI icon on the map.  
📍 [Displaying/Hiding POI icons on the map], page 3-9.
- c Map scale : Increases or decreases the map scale.  
📏 [Changing the map scale], page 3-8.

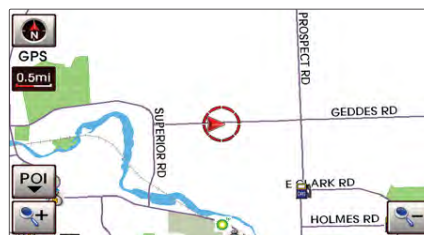
### Switching map mode (North Up / Heading Up)

Each time the compass button is pressed, the screen will switch in the order shown below.

Heading Up → North Up → Heading Up

#### **i** INFORMATION

All map screens (map screen after setting destination & whole route display screen) except the current position screen will always be displayed in North Up mode.



- North Up : displays the map always facing the North direction regardless of the direction which the vehicle is traveling.

The vehicle icon is displayed in the center position of the map.



- Heading Up : displays the map always facing the direction which the vehicle is traveling. The vehicle icon is displayed in the lower center position of the map.

### **🗣️** Voice Command

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"North Up"  
"Heading Up"

### Viewing GPS signal state

The state of GPS signal reception is displayed as shown below.

- **GPS (active) :**  
GPS reception is satisfactory.
  - **GPS (inactive) :**  
GPS reception is unsatisfactory.
- 📍 [System information and update], page 3-51.

### **i** INFORMATION

• **GPS (Global Position System) :** GPS is a system developed and operated by the United States which determines the current location of the user (longitude, latitude, etc.) by generally using 4 or more satellites. This system is used with related GPS information, various sensors, road map data, and other navigation related information.

- GPS information may not operate under the following conditions.
  - When buildings, tunnels, or other obstructions block satellite signals.
  - When materials are placed above the GPS antenna and block satellite signals.
  - When the satellite does not transmit signals (signal transmission is controlled by the satellite control center in the United States and may not transmit when under repair, modification, etc).
  - When a digital cellular phone (1.5GHz) is placed near the GPS antenna.
- This system uses GPS information, various sensors, road map data, and other related information to display the current position. Errors may occur if the satellite is transmitting inaccurate signals or if which can only two or less satellite signals can be received. Errors which occur in such conditions cannot be corrected.

## PART 3 NAVIGATION SYSTEM

### Changing the map scale

Press the or button. The map scale will be increased or decreased by one level.

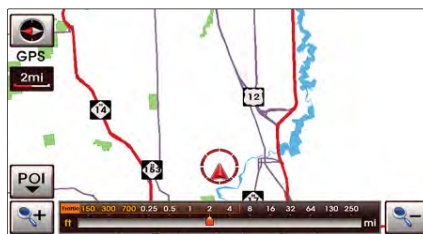
### **i** INFORMATION

Each time the or button is pressed, the scale bar will be displayed.

The scale can be changed by directly pressing the scale level on the scale bar.

The green color on the scale bar indicates the current scale level while the orange color indicates the selected scale level.


- Press the or button for over 0.8 second. The scale will continuously change.
- If the scale range limit is reached, the or button will be disabled.
- The map scale range is between 1 and 14: 10,240,000 ~ 1 : 5,000.



Level	Actual distance	
	mi / ft	km / m
1	150 ft	50 m
2	300 ft	100 m
3	700 ft	200 m
4	0.25 mi	400 m
5	0.5 mi	800 m
6	1 mi	1.6 km
7	2 mi	3.2 km
8	4 mi	6.4 km
9	8 mi	12 km
10	16 mi	25 km
11	32 mi	50 km
12	64 mi	100 km
13	130 mi	200 km
14	250 mi	400 km




### Voice Command








1. Press the  key on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Zoom In"
  - "Zoom Out"
  - "Zoom Maximum"
  - "Zoom Minimum"
  - "Zoom level <1 to 14>"
  - "Zoom <actual distance>"
  - " (ex. Zoom 700ft)"

### Displaying / Hiding POI icons on the map


#### ■ Displaying/Hiding Q.POI icons

- 1 Press the  button.  
Related menu buttons will be displayed at the bottom of the screen.


#### INFORMATION

The Q.POI icons are set to  - Gas Station,  - Parking,  - Hotel,  - Golf Course,  - Bank,  - Fast Food (6 icons) by default. This setting can be changed in SETUP.  [Setting Q.POI icons], page 3-42.




- 2 Press the icon buttons to display or hide.  
To turn off all POI icons displayed on the map, press the  button.

#### INFORMATION

- The current displayed POI icons are highlighted while the icons not being displayed are shown as normal buttons.
- If there are no POI icons being displayed, the  button will be disabled.
- POI icons are displayed when the scale is under 0.5 mi (800m).

#### ■ Displaying / Hiding icons other than Q.POI icons

- 1 Press the  button.  
Related menu buttons will be displayed at the bottom of the screen.

- 2 Press the  button.

#### INFORMATION

Q.POI stands for Quick POI and refers to the function which turns POI icon display on or off on the map.

## PART 3 NAVIGATION SYSTEM


### (a) by category list




- 3 Press the desired main category button.



- 4 Select the desired sub category menu to display or hide (Multiple selections are possible).  
Press the selected menu again to cancel the selection.

- 5 If the  button is pressed, the selected menus will be displayed or hidden on the map screen.

### Voice Command

1. Press the  key on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Show <POI name>" (ex. Show ATM)
  - "Hide <POI name>" (ex. Hide ATM)
  - "Hide All"

### Making a call to POI

After searching a POI, the POI phone number information can be used to make a call to the POI facility.

- 1 Use the various search methods, such as the map scroll function, Q.POI search function, and destination search function to search for a POI.



- 2 Press the  button.



3 Bluetooth is used to make a call to the POI facility.



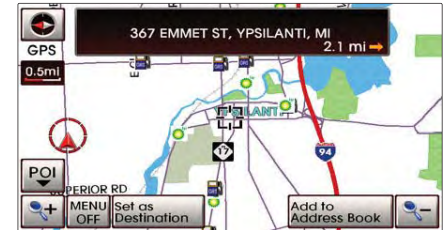
4 Once the call is ended, the map is restored to the current vehicle location.

**i INFORMATION**

- Making a call is not possible if there is no telephone information for a POI or if there is no mobile phone connected through Bluetooth.
- For more information of mobile phone authentication through Bluetooth or detailed information on conducting search, refer to [Pairing and connecting a Bluetooth phone], page 5-4.

**Scrolling map**

Press the map area on the map screen. The selected point will be centered on the screen and the scroll mark will be displayed. Information about the marked point and straight line distance from the current position will be displayed at the top of the screen.



**i INFORMATION**

If a map area on the map screen is pressed, the map will continuously scroll in the corresponding direction until the pressing is released.

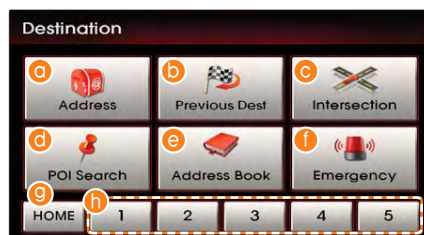
## PART 3 NAVIGATION SYSTEM

### Setting a destination

**Destination menu screen and functions**



Press the **DEST** key on the control panel to display the destination menu screen.



- a** Address : Sets the destination through address search. [Searching an Address], page 3-13.
- b** Previous Dest : Sets the destination through the previous destination list. [Searching a Previous Destination], page 3-17.
- c** Intersection : Sets the destination through intersection search. [Searching an Intersection], page 3-17.
- d** POI Search : Sets the destination through POI Category search. [Searching a POI], page 3-20.
- e** Address Book : Sets the destination through address book search. [Searching from Address book], page 3-24.

- f** Emergency : Sets the destination through emergency facilities search. [Searching for Emergency facilities], page 3-25.
- g** HOME : Sets the stored HOME as the destination. [Searching your Home], page 3-25.
- h** Favorite place **1** ~ **5** : Sets the destination with one of the stored favorite places. [Searching favorite places], page 3-26.

## Searching a Destination

### ■ Searching an Address

There are 2 ways to set the destination through address search-(a) by street, (b) by city.

- ① Press the **DEST** key.
- ② Press the **Address** button.



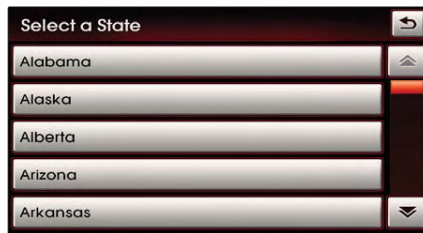
- ③ Press the **State** button to change the state.



- ④ Input the State name and press the **List** button.

If the number of matches with the input is less than 4 results, then the state list screen will be displayed automatically.

If the number of matches is only one result, then the state will automatically be changed without having to manually select the state.

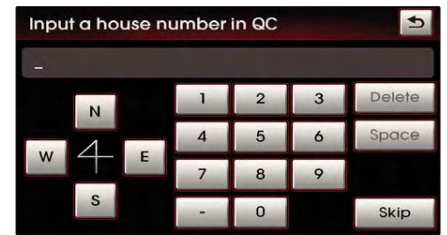


- ⑤ Select the desired state from the list to change the state.

### (a) by street



- ⑥ Press the **Street** button.



## PART 3 NAVIGATION SYSTEM

- ⑦ Input the House number and Press the **Done** button to complete.

If the House number is not recognized, press the **Skip** button.

In this case, the range of house numbers will be displayed during the last step.



- ⑧ Input the Street name and press the **List** button.

If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



- ⑨ If the desired street from the list is selected, the corresponding position will be displayed on the map.

### **i** INFORMATION

If more than 30 cities exist with the selected street, then the city input screen will be displayed. If less than 30 cities exist, then the city selection screen will be displayed.



- ⑩ Input the city name and press the **List** button to complete.

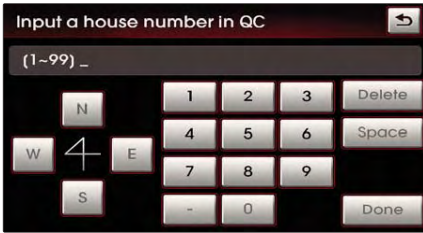
If the number of matches with the input is less than 4 results, then the list screen will be displayed automatically.



- ⑪ Select the desired city from the list.



12 This screen will be displayed if the House number had not been inputted during step 6 and more than 2 house numbers ranges exist. Select the desired House number range.



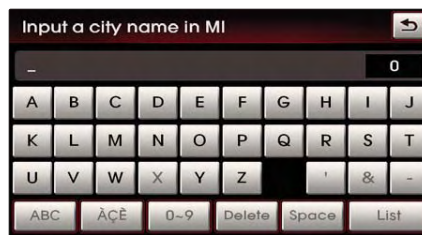
13 This screen will be displayed if the House number had not been inputted during step 6 and only one house numbers range exists.

Input the House number and press the **Done** button to complete. The corresponding position will be displayed on the map.

**(b) by city**



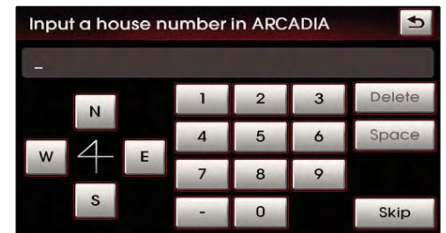
5 Press the **City** button.



6 Input the city name and press and press the **List** button. If the number of matches with the input is less than 4 results, then the city list screen will be displayed automatically.



7 Select the desired city from the list.



## PART 3 NAVIGATION SYSTEM

8 Input the house number and press the **Done** button to complete.

If the House number is not recognized, press the **Skip** button. In this case, the range of house numbers will be displayed during the last step.



9 Input the Street name and press the **List** button to complete.

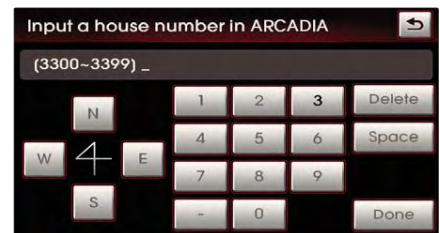
If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



10 Select the desired street from the list and the corresponding position will be displayed on the map.



11 This screen will be displayed if the House number had not been inputted during step 8 and more than 2 House number ranges exist. Select the desired House number range.



12 This screen will be displayed if the House number had not been inputted during step 8 and only one House number range exists.

Select the house number range and Press the **Done** button to complete.

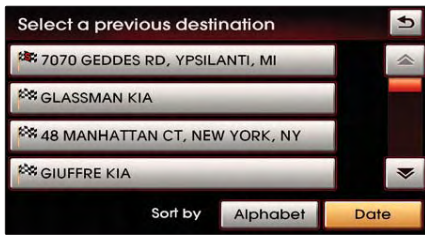
The corresponding position will be displayed on the map.

### Voice Command

1. Press the key on the steering wheel remote controller.
2. After the beep sound, say a command. "Find address"  
 [Find address], page 4-19.

### ■ Searching a Previous Destination

- ① Press the **DEST** key.
- ② Press the **Previous Dest** button.



- ③ Select the desired previous destination. The corresponding position will be displayed on the map.

### 🗣️ Voice Command

1. Press the **Voice** key on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Previous destination"
    - 🔊 [Previous destination], page 4-24.
  - "Previous start point"
    - 🔊 [Previous start point], page 4-25.

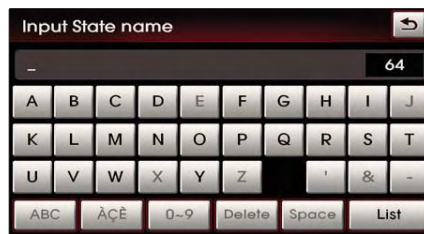
### ■ Searching an Intersection

There are two ways to set the destination through intersection search-(a) by street, (b) by city.

- ① Press the **DEST** key.
- ② Press the **Intersection** button.



- ③ Press the **State** button to change the state.



- ④ Input the state name and press the **List** button. If the number of matches with the input is less than 4 results, then the state list screen will be displayed automatically. If the number of matches is only one result, then the state will automatically be changed without having to manually select the state.



- ⑤ Select the desired state from the list to change the state.

## PART 3 NAVIGATION SYSTEM

### (a) by street



- ② Press the **Street** button.



- ⑦ Input the name of the 1st street and press the **List** button. If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



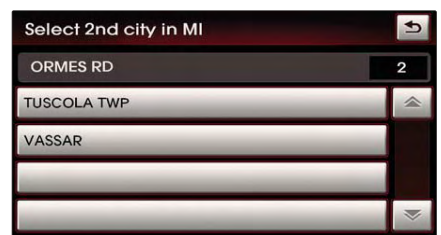
- ⑧ Select the desired 1st street from the list.



- ⑨ Input the name of the 2nd street and press the **List** button. If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



- ⑩ Select the desired 2nd street menu from the list. The corresponding position will be displayed on the map.

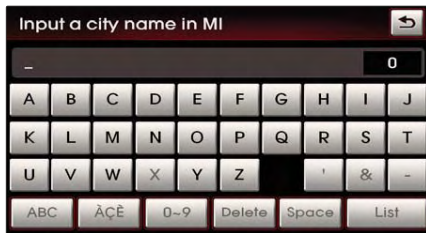


- ⑪ If the selected 2nd street is within more than 2 cities, then the city list screen will be displayed. Select the desired city menu from the list. The corresponding position will be displayed on the map.

**(b) by city**



⑥ Press the **City** button.



⑦ Input the city name and press the **List** button.

If the number of matches with the input is less than 4 results, then the city list screen will be displayed automatically.



⑧ Select the desired city name.



⑨ Input the name of the 1st street and press the **List** button.

If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



⑩ Select the desired 1st street menu from the list.



⑪ Input the name of the 2nd street and press the **List** button.

If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.

## PART 3 NAVIGATION SYSTEM



⑫ Select the desired 2nd street menu from the list.

The corresponding position will be displayed on the map.



⑬ If the selected 2nd street is within more than 2 cities, then the city list screen will be displayed.

Select the desired city menu from the list. The corresponding position will be displayed on the map.

### ■ Searching a POI

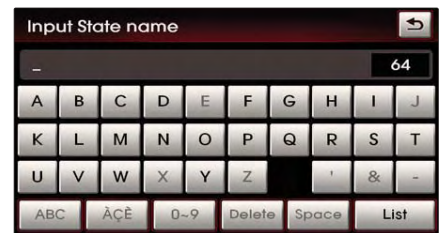
There are 3 ways to set the destination through POI search - (a) by category, (b) by name, (c) by phone number.

① Press the **DEST** key.

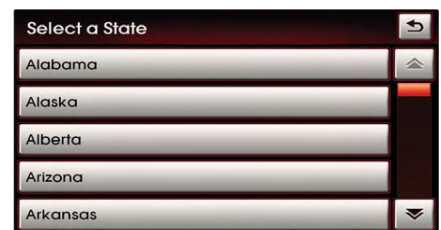
② Press the **POI Search** button.



③ Press the **State** button.



④ Input the state name and press the **List** button. If the number of matches with the input is less than 4 results, then the state list screen will be displayed automatically. If there is only one matching result, then the state will automatically be changed without having to manually select the state.



⑤ Select the desired state from the list to change the state.

**(a) By category**

Searches for facilities nearby the current position or from the city center.



6 Press the **Category** button.



7 Press the **Near current position** button to search for facilities nearby the current position, or press the **Near city center** button to search for facilities in the near city center.

**(a-1) Near current position**

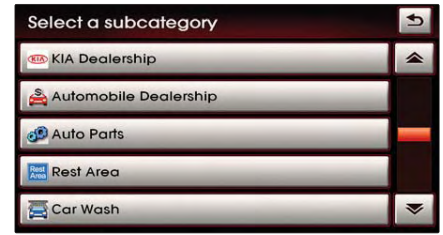
Searches for facilities within a 30 mi (45km) radius of the current position.



8 Press the desired main category menu.

**Voice Command**

1. Press the key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Find nearest POI"  
 [Find nearest POI], page 4-20.



9 Press the desired sub category menu.

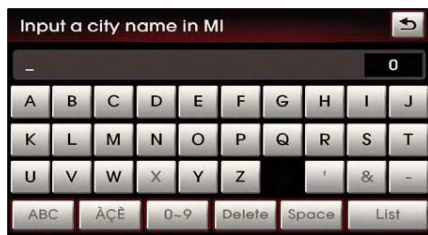


10 Select the desired menu button.  
The corresponding position will be displayed on the map.

**PART 3 NAVIGATION SYSTEM**

**(a-2) Near city center**

Searches for facilities from the city center.



8 Input the city name and press the **List** button.

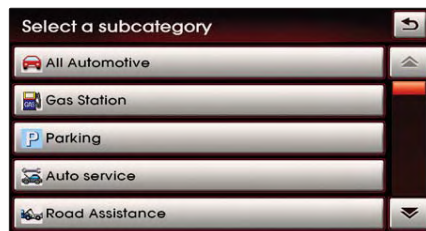
If the number of matches with the input is less than 4 results, then the city list screen will be displayed automatically.



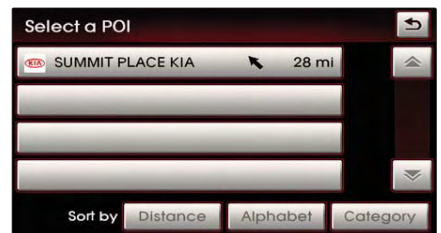
9 Press the desired city menu.



10 Press the desired main category.



11 Press the desired sub category.



12 Select the desired menu button.  
The corresponding position will be displayed on the map.

**INFORMATION**

The distance on each POI item button refers to the distance from the city center.

**(b) By name**



⑥ Press the **Name** button.



⑦ Input the name of the POI and press the **List** button.

If the number of matches with the input is less than 4 results, then the facilities list screen will be displayed automatically.



⑧ Select the desired POI menu.

The corresponding position will be displayed on the map.

**i INFORMATION**

When necessary, the search conditions for the city and category can be changed by pressing the **Advanced** button.



**• Changing City**

- ① Press the **City** button.
- ② Input the city name and press the **List** button.
- ③ Select the desired city name.

**• Changing Category**

- ① Press the **Category** button.
- ② Select the desired main category menu.
- ③ Select the desired sub category menu.

**(c) By phone number**



⑥ Press the **Phone #** button.

## PART 3 NAVIGATION SYSTEM



⑦ Input the phone number and Press the **Done** button to complete.

The corresponding position will be displayed on the map.

**🗣️ Voice Command**

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command. "Destination POI by Phone Number"  
📍 [Destination POI by phone number], page 4-22.

**■ Searching from Address book**

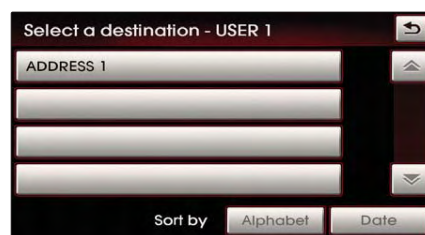
- ① Press the **DEST** key.
- ② Press the **Address book** button.



③ Select the desired address book (user) menu.

**i INFORMATION**

This system provides 5 address books. Each addresses book can hold up to 200 entries.



④ Select the desired address name from the list.

The corresponding position will be displayed on the map.

📍 [Registering new address in address book], page 3-43.

**🗣️ Voice Command**

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command. "Destination by address book"  
📍 [Destination by address book], page 4-24.



### ■ Searching for Emergency facilities

- 1 Press the **DEST** key.
- 2 Press the **Emergency** button.



- 3 Select the desired facility category.



- 4 Select the desired facility.  
The corresponding position will be displayed on the map.

### 🗣️ Voice Command

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Find emergency <Category>"  
📍 [Find emergency <Category>], page 4-23.

### ■ Searching your Home

- 1 Press the **DEST** key.
- 2 Press the **HOME** button.  
The Home position will be displayed on the map.

### 📘 INFORMATION

If the Home address is not registered, then the **HOME** button will be displayed.  
📍 [Registering home address], page 3-48.

### 🗣️ Voice Command

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Go home"  
📍 [Go home], page 4-25.

## PART 3 NAVIGATION SYSTEM

### ■ Searching favorite places

- 1 Press the **DEST** key.
- 2 Select the desired button from **1** ~ **5**.  
The corresponding position will be displayed on the map.

### 📘 INFORMATION

If the address of the Favorite place is not registered, then the **1** ~ **5** buttons without registered addresses will be disabled.  
📍 [Registering favorite place], page 3-49.

### 🗣️ Voice Command

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Destination by memory point <1 to 5>"  
📍 [Destination by memory point <1 to 5>], page 4-25.

### ■ Searching from MAP

Position the scroll mark at the destination by scrolling the map on the map screen.

### ■ Searching POI by local POI list

- 1 Press the **POI** button on the map screen.
- 2 Press the **Others** button.



- 3 Press the **Local POI lists** button.



- 4 Select the desired POI menu.  
The corresponding position will be displayed on the map.

### 🗣️ Voice Command

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Find nearest <POI name>"  
📍 [Find nearest <POI name>], page 4-21.

### Operating after searching a destination



#### ■ Changing destination position :

Changes the position of the destination by scrolling the map.

[Scrolling map], page 3-11.

#### ■ Setting as Destination / waypoint :

Sets the position as the destination or waypoint.

#### Voice Command

1. Press the key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Start guidance"  
(Sets the position of the scroll mark as the destination and begins route guidance.)

#### ■ Adding to address book :

Saves the position in the address book.  
 [Registering new address in address book], page 3-43.

#### Voice Command

1. Press the key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Store Marked Location to <text tag>"

## PART 3 NAVIGATION SYSTEM

### Operating after setting a destination



#### Starting Route Guidance

Press the **Start Guidance** button. Route Guidance will start.

- Route simulation
  - If the **Start Guidance** button is pressed and held for over 0.8 second, then the route simulation will start.
  - If the **MAP** key on the control panel is pressed during route simulation, then route simulation will be terminated.

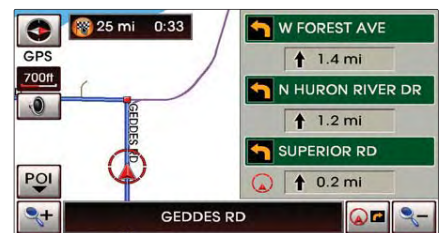
#### Voice Command

1. Press the key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Time to destination"  
"Distance to destination"

#### Route guidance screen




- Symbol guidance mode : If the button is pressed, then the following route guidance screen will be displayed.



- Turn-List mode : If the button is pressed, then the following route guidance screen will be displayed.

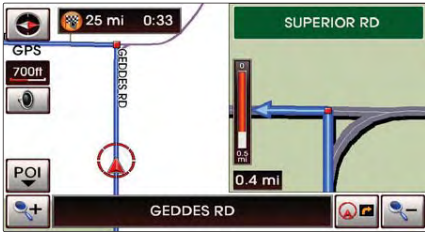


• Highway mode : If the  button is pressed, then the following route guidance screen will be displayed.



• Highway junction mode : This route guidance screen is automatically displayed during guidance at highway junctions.

Once guidance at a highway junction is complete, this screen will automatically disappear and the previous guidance screen will be restored.





• Intersection zoom mode : This route guidance screen is automatically displayed during guidance at an intersection.

Once guidance at the intersection is complete, the screen will automatically disappear and the previous guidance screen will be restored.

### Selecting other route

① Press the  button.

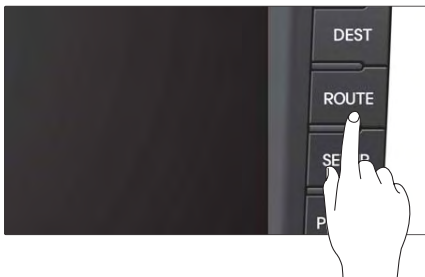



② Other routes can be selected by pressing the  or  buttons.

## PART 3 NAVIGATION SYSTEM

### Route guidance


#### Route menu screen and functions



Press the  key on the control panel. The ROUTE menu screen will be displayed.




a Cancel Route: Deletes destination, waypoints and terminates route guidance.

 [Finishing route guidance], page 3-30 .

b Route Overview: Displays the entire route and route detailed.

 [Route overview], page 3-31 .

c Route Option: The route option can be changed.

 [Changing Route option], page 3-32 .


d Edit Waypoint: Waypoints can be added/deleted and the order can be changed.

 [Editing waypoints], page 3-32 .

e Detour: Searches detour routes.

 [Setting detour distance], page 3-35 .

f Avoid Streets: Searches routes which avoid the selected streets.

 [Setting avoid streets on route], page 3-35.

### Finishing route guidance (Delete Destination)


① Press the  key.

② Press the  button.




③ Press the  button.

The destination and waypoints are deleted and the route guidance is terminated.

 [Finishing route guidance], page 3-30 .

### Voice Command

1. Press the  key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Cancel route"  
(Terminates route guidance and deletes the set destination and waypoints.)

### Route overview (View Entire Route)

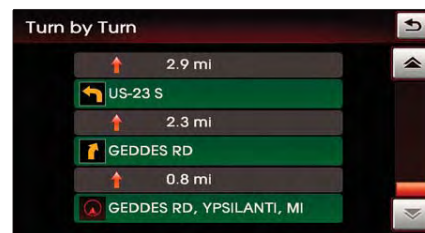
- 1 Press the **ROUTE** key.
- 2 Press the **Route Overview** button.



- 3 Press the **Turn by turn** button.

### INFORMATION

If the **Return to Guidance** button is pressed, route guidance screen is displayed.



- 4 The detailed route information can be viewed.

## PART 3 NAVIGATION SYSTEM


### Changing Route option

- 1 Press the **ROUTE** key.
- 2 Press the **Route Option** button.



- 3 Press the button for the desired route guidance method.  
Guidance will be restarted after recalculating the route with the selected guidance method.

### Voice Command

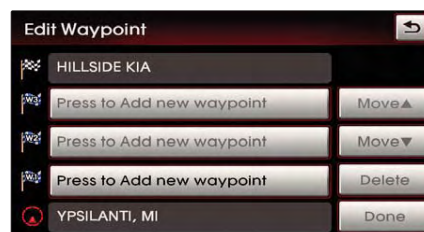
1. Press the  key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Replan recommended route"  
"Replan shortest route"  
"Replan minimize freeway route"  
"Replan minimize toll road route"

### Editing waypoints

#### Adding waypoints

There are 2 ways to add waypoints - (a) searching for POI nearest to the route, (b) using advanced search.

- 1 Press the **ROUTE** key.
- 2 Press the **Edit Waypoint** button.

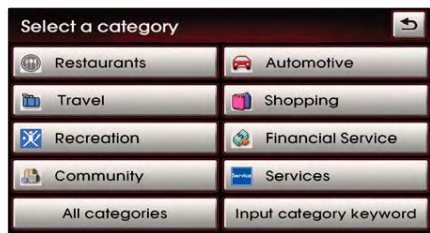


- 3 Press the **Press to add new waypoint** button.

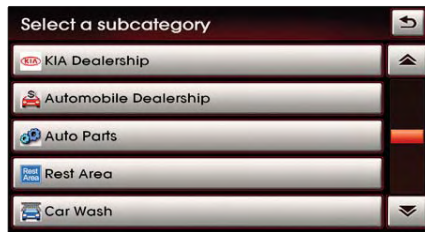
**(a) Searching POI lists near route**



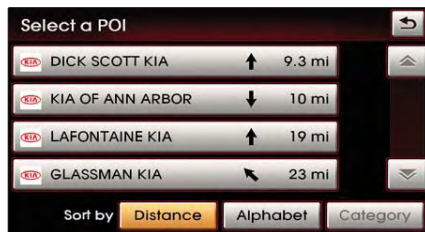
④ Press the **Near POI lists on Route** button.



⑤ Select the desired category.



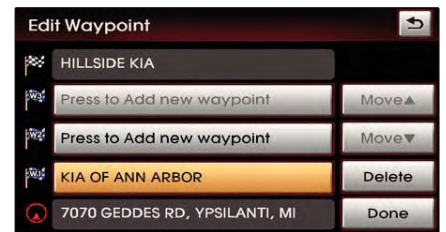
⑥ Select the desired sub category from list.



⑦ Select the desired POI from the list.  
The corresponding position will be displayed on the map.



⑧ Press the **Add as Waypoint** button.



⑨ Press the **Done** button to complete.  
Guidance will restart after recalculating the route.

## PART 3 NAVIGATION SYSTEM

**(b) Using advanced Search**

The method for searching waypoints through the **Advanced(more)** button is the same method as searching destination.

🔍 [Searching a Destination], page 3-13.

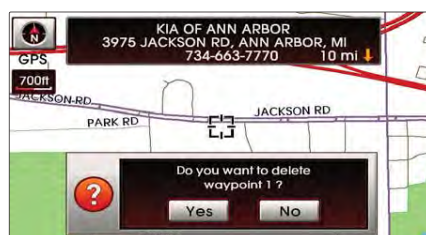
**■ Deleting waypoints**

① Press the **ROUTE** key.

② Press the **Edit waypoint** button.



③ Select the waypoint and press the **Delete** button.



④ Press the **Yes** button.



⑤ After deleting, press the **Done** button to complete.  
Guidance will be restart after recalculating.

**■ Re-ordering waypoints**

① Press the **ROUTE** key.

② Press the **Edit waypoint** button.



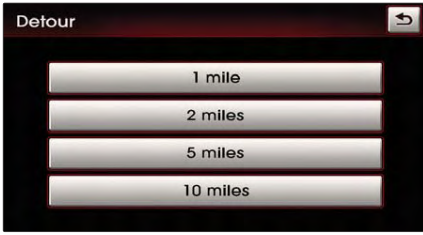
③ Select the desired waypoint and use the **MOVE ▲**, **MOVE ▼** buttons to change the order.

④ Once re-ordering is complete, press the **Done** button to complete.

Guidance will restart after recalculating the route.

### Setting detour distance

- ① Press the **ROUTE** key.
- ② Press the **Detour** button.



- ③ Select the desired detour range. Guidance will restart after recalculating the detour route.

#### Voice Command

1. Press the key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Detour <1 or 2 or 5 or 10> miles"  
"Detour <1 or 2 or 5 or 10> kilometers"

### Setting avoid streets on route

- ① Press the **ROUTE** key.
- ② Press the **Avoid streets** button.



- ③ Select the desired streets to avoid ( avoid, allow) and press the **Done** button to complete. Guidance will restart after recalculating.

## PART 3 NAVIGATION SYSTEM

### Setup and Information

#### Setup menu screen and functions



Press the **SETUP** key on the control panel to display the setup menu screen.



- **a** Main button : Changes to the input keyboard type, voice command feedback ON/OFF settings and system initialization can be made.

- **b** Traffic Setup button : Sets whether to display traffic information on map, whether to provide upcoming traffic information voice guidance, and whether to display the detour route popup showing upcoming traffic information.
- **c** Navigation button : Navigation related settings can be set.
  - [Navigation setting], page 3-38 .
- **d** My Places button : The Address book, Home address, Favorite places, Previous destination can be edited.
  - [My places setting], page 3-43 .
- **e** System Info button : The system version information can be viewed and system upgrades can be conducted.
  - [System information and update], page 3-51 .
- **f** Voice Setup button : Adjusts the Navigation guidance volume.
  - [Voice guidance volume setting], page 3-51 .
- **g** Help button : The help contents can be viewed.
  - [Help], page 3-54 .

- **h** Display button : Adjusts the display setting.
  - [Display setting], page 1-12 .

#### Main setting

- ① Press the **SETUP** key.
- ② Press the **Main** button.



- ③ Select the desired changes and press the **Done** button to complete.

#### ■ Setting keyboard for inputting letter

Press the desired keyboard type button. The selection will be highlighted.

**Setting voice command feedback ON/OFF**

Press the desired setting button.

**Setting Language**

1 Press the **Change** button.



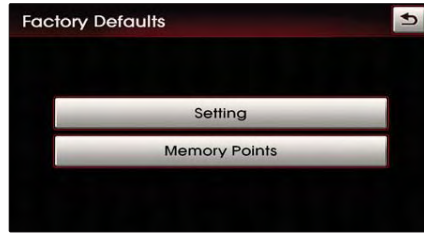
2 Press the desired language.



3 Press the **Done** button to complete.

**Initializing system**

1 Press the **Factory default** button.



2 Press the menu desired for initialization.



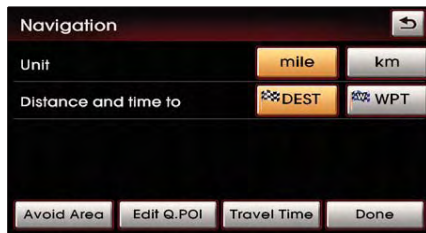
3 Press the **Yes** button.

**PART 3 NAVIGATION SYSTEM**

**Navigation setting**

1 Press the **SETUP** key.

2 Press the **Navigation** button.



3 Select the desired changes and press the **Done** button to complete.

**Setting units (mile/ km)**

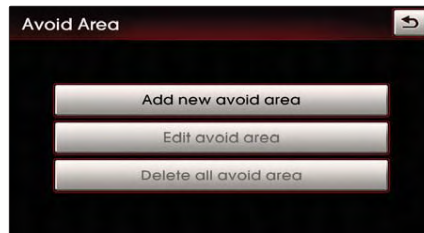
Select the desired distance unit.

**Setting arrival time and distance display**

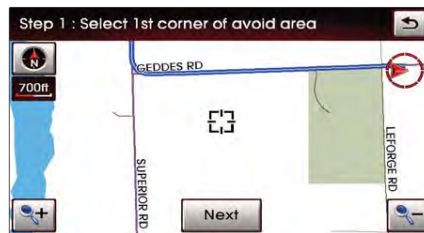
Select the desired setting button.

**Registering avoid area**

1 Press the **Avoid Area** button.



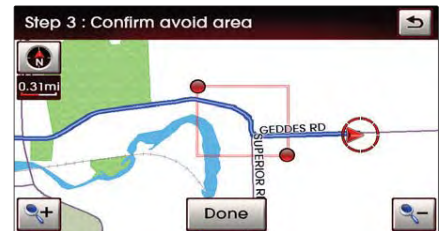
2 Press the **Add new avoid area** button.



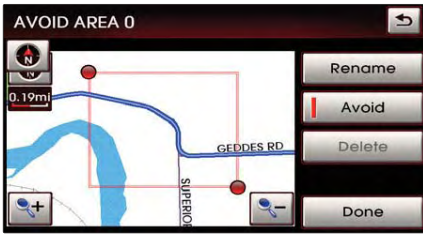
3 Set the start position of the avoid area and press the **NEXT** button.



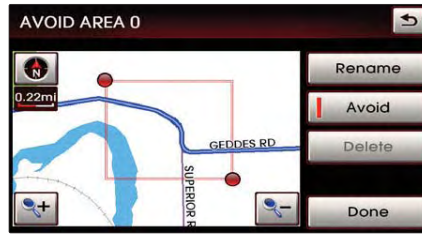
4 Set the end position of the avoid area and press the **NEXT** button.



5 Press the **Done** button to complete.



⑥ If the Avoid area needs to be renamed, press the **Rename** button.



⑦ Each time the **Avoid** button is pressed, the function will switch between avoid (🚫) or allow (📍).



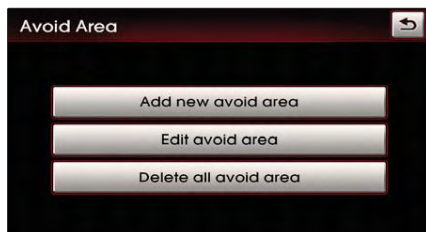
⑧ Press the **Done** button to complete the setting.

⑨ Rename the Avoid area and Press the **Done** button to complete.

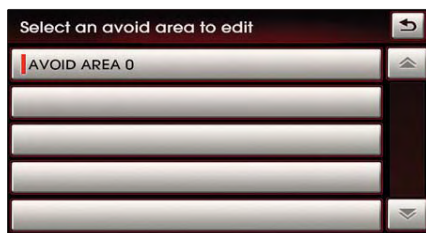
## PART 3 NAVIGATION SYSTEM

### ■ Editing avoid area

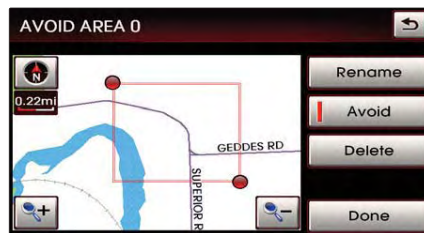
① Press the **Avoid Area** button.



② Press the **Edit avoid area** button.



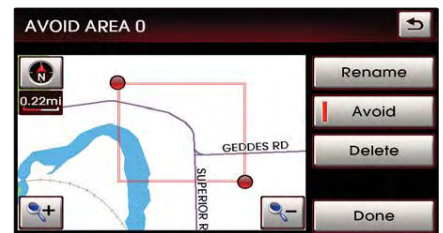
③ Select the Avoid area button to edit.



④ If the Avoid area needs to be renamed, press the **Rename** button.



⑤ Rename the Avoid area and press the **Done** button to complete.



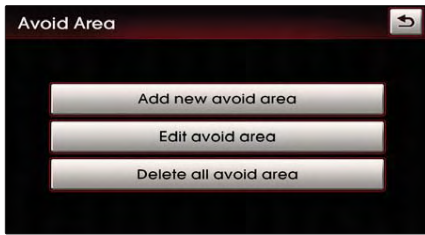
⑥ Each time the **Avoid** button is pressed, the function will switch between avoid (🚫) or allow (📍).

⑦ Press the **Done** button once editing is complete.



### ■ Deleting avoid area

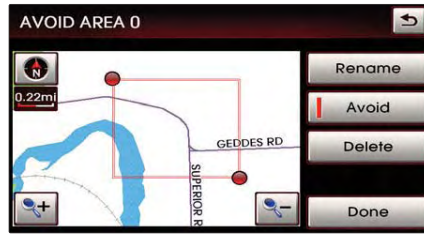
① Press the **Avoid area** button.



② Press the **Edit avoid area** button.



③ Select the **Avoid area** button to delete.



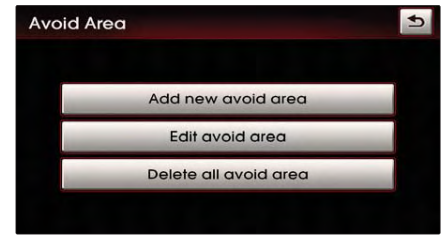
④ Press the **Delete** button.



⑤ Press the **Yes** button.

### ■ Deleting all avoid areas

① Press the **Avoid area** button.



② Press the **Delete all avoid area** button.



③ Press the **Yes** button.

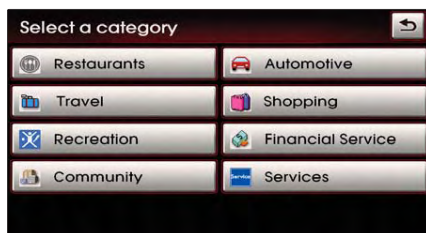
## PART 3 NAVIGATION SYSTEM

### ■ Setting Q.POI icons

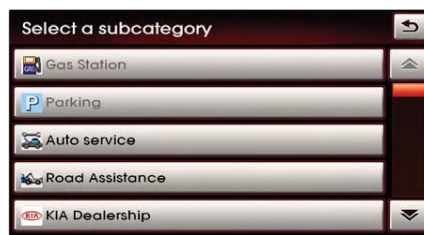
① Press the **Edit Q.POI** button.



② Select the desired menu.



③ Select the desired category.



④ Select the desired sub category.



⑤ Press the **Done** button to complete.

#### **i** INFORMATION

Q.POI stands for Quick POI and refers to the function which turns POI icon display on or off on the map.

### ■ Setting estimate travel time

① Press the **Travel Time** button.



② Press the **<** or **>** button on the Residential, Main street, and Freeway controls to adjust the speed. Press the **Default** button to set the speeds to the default settings.

③ Press the **Done** button to complete the setting.

## My places setting

### ■ Registering new address in address book

There are 3 ways to register a new address in the address book - (a) by DEST menu, (b) by registering address in address book, (c) from map scroll.

#### (a) by DEST menu

① Press the **DEST** key.

② Search through the desired method.

The search process is the same as the method for destination search.

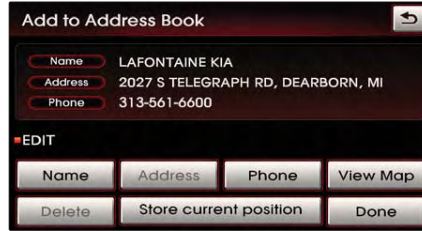
📍 [Searching a destination], page 3-13.



③ Press the **Add to Address Book** button.



④ Press the desired address book (user) button.



⑤ Input the name and telephone information and press the **Done** button to complete.

📍 [Editing an address of address book], page 3-45.

#### (b) by registering in the address book

① Press the **SETUP** key.

② Press the **My Places** button.

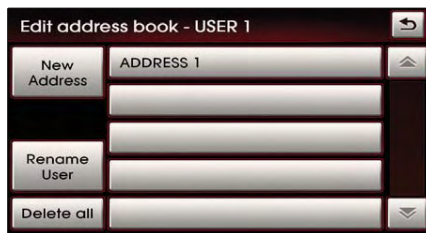


③ Press the **Address book** button.



④ Press the desired address book (user) button.

## PART 3 NAVIGATION SYSTEM



⑤ Press the **New Address** button.



⑥ Press the **Address** button to search the address.

📍 [Searching an address], page 3-13.

### **i** INFORMATION

Press the **Store current position** button to input the address of the current position.

⑦ Input the name and telephone information and press the **Done** button to complete.

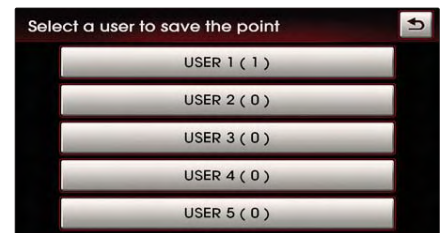
📍 [Editing an address of address book], page 3-45.

#### (c) from map scroll

① In the map screen, scroll the map to the desired position.



② Press the **Add to Address Book** button.



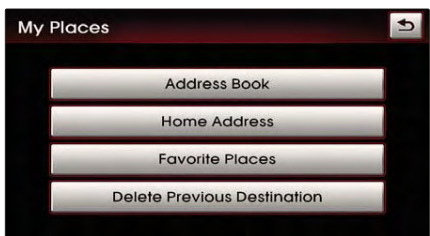
③ Press the desired address book (user) button.

④ Input the name and telephone information and press the **Done** button to complete.

📍 [Editing an address of address book], page 3-45.

### ■ Editing an address of address book

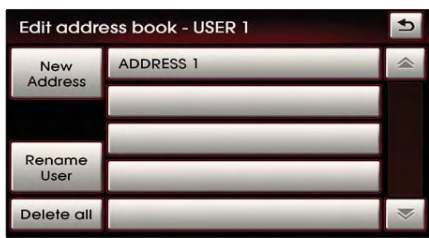
- 1 Press the **SETUP** key.
- 2 Press the **My places** button.



- 3 Press the **Address book** button.



- 4 Select the desired address book (user) button.



- 5 Select the desired address to edit.



- 6 Press the **Name** button to input the address name.



- 7 Input the address name and press the **Done** button to complete.



- 8 Press the **Address** button to search the address. The process is the same as the method for searching an address.   
🔍 [Searching an Address] , page 3-13.

### **i** INFORMATION

Press the **Store current position** button to input the address of the current position.

## PART 3 NAVIGATION SYSTEM

- 9 Press the **Phone** button to input the phone number.



- 10 Input the phone number and press the **Done** button to complete.



- 11 Press the **Done** button to complete.

### ■ Deleting an address of address book

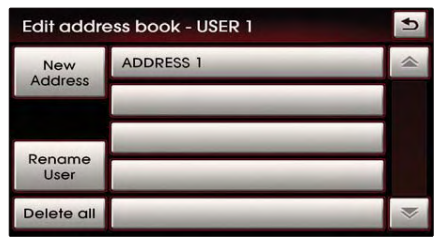
- 1 Press the **SETUP** key.
- 2 Press the **My places** button.



- 3 Press the **Address book** button.



- 4 Select the desired address book (user) button.



- 5 Select the desired address button to delete.



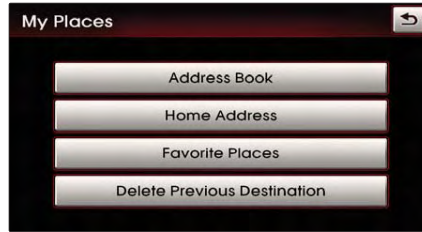
- 6 Press the **Delete** button.



7 Press the **Yes** button.

### ■ Deleting an address book

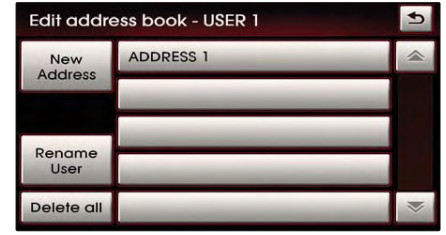
- 1 Press the **SETUP** key.
- 2 Press the **My places** button.



3 Press the **Address book** button.



4 Press the desired address book (user) button.



5 Press the **Delete all** button.



6 Press the **Yes** button.

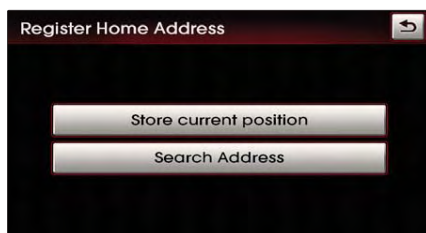
## PART 3 NAVIGATION SYSTEM

### ■ Registering home address

- 1 Press the **SETUP** key.
- 2 Press the **My places** button.



3 Press the **Home Address** button.

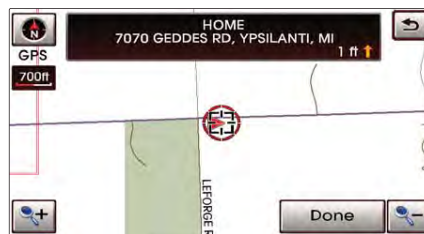


4 Press the **Search Address** button.

### **i** INFORMATION

Press the **Store current position** button to register the current position as Home.

- 5 Search the address.  
The process is the same method as searching an address.  
 [Searching an Address], page 3-13.



6 Press the **Done** button to complete.

### ■ Deleting home address

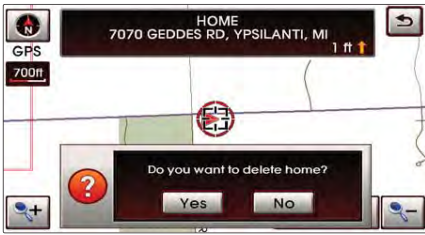
- 1 Press the **SETUP** key.
- 2 Press the **My places** button.



3 Press the **Home Address** button.



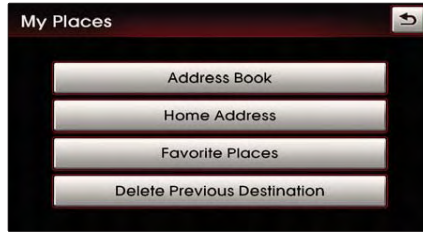
4 Press the **Delete** button.



5 Press the **Yes** button.

### ■ Registering favorite place

- 1 Press the **SETUP** key.
- 2 Press the **My places** button.



3 Press the **Favorite Places** button.



4 Press the number of the Favorite Place to register.



5 Press the **Search address** button.

### **i** INFORMATION

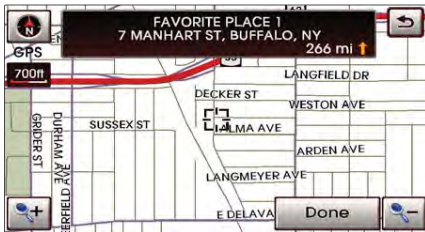
Press the **Store current position** button to register the current position as a Favorite place.

6 Search the address.

The process is the same as the method for searching an address.

[Searching an Address], page 3-13.

## PART 3 NAVIGATION SYSTEM



7 Press the **Done** button to complete.

### ■ Deleting favorite place

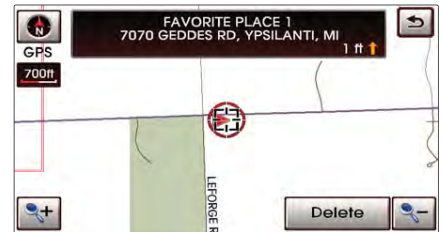
- 1 Press the **SETUP** key.
- 2 Press the **My places** button.



3 Press the **Favorite Places** button.



4 Select the desired favorite place button to delete.



5 Press the **Delete** button.



6 Press the **Yes** button.

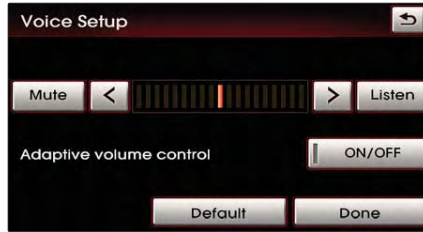
### System information and update

- 1 Press the **SETUP** key.
- 2 Press the **System Info** button.



### Voice guidance volume setting

- 1 Press the **SETUP** key.
- 2 Press the **Voice Setup** button.



### Voice guidance volume control

- Set the desired volume level by using the **<** or **>** buttons and press the **Listen** button to verify the volume level.

### Voice Command

1. Press the **🗣️** key on the steering wheel remote controller.
  2. After the beep sound, say a command.
    - "Voice Guidance Louder"
    - "Voice Guidance Softer"
- Press the **MUTE** button when voice guidance is unnecessary. Voice guidance can be turned back on by pressing the **<** or **>** buttons or pressing the **MUTE** button.

### Voice Command

1. Press the **🗣️** key on the steering Wheel remote controller.
2. After the beep sound, say a command.
  - "Voice Guidance On"
  - "Voice Guidance Off"

## PART 3 NAVIGATION SYSTEM

### Adaptive volume control ON/OFF

- Press the desired setting button.

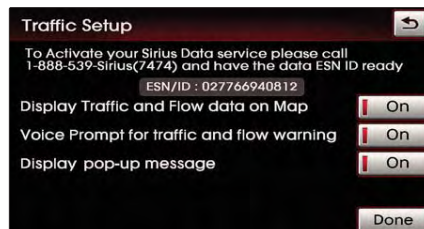
#### **i** INFORMATION

#### Adaptive Volume Control

If the speed of the vehicle is over approximately 60 mi/h (100km/h), the volume level can be increased one level higher than the current level. If the speed of the vehicle falls under 60 mi/h (100km/h), the volume level will return to its original level.

### Traffic Setup

- 1 Press the **SETUP** key.
- 2 Press the **Traffic Setup** button.
- 3 Select the desired changes and press the **Done** button.

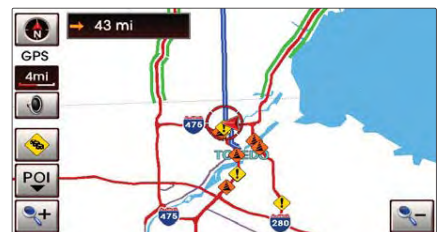


#### **i** INFORMATION

- Display Traffic and Flow data on Map : select whether to display traffic information on the map.
- Voice Prompt for traffic and flow warning : Decides whether to provide voice guidance in front of Traffic Information. (On route - 3mile)
- Display pop-up message : Decides whether to display pop up in front of Traffic Information. (On route - 3mile)

### Traffic Information

#### (a) Viewing Traffic Information



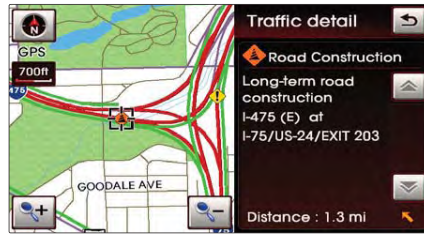
- 1 When the Traffic option is active, press the **🚦** button on the Map screen.

#### **i** Traffic Flow Information

- ■ Normal, Free Flowing (46 mph ~)
- ■ Moderate Congestion (26 ~ 45 mph)
- ■ Heavy Traffic, Stop and Go (0 ~ 25 mph)

**i INFORMATION**

- Traffic information will be shown on the map up until the scale is ~4mile.
- Displays the traffic information around vehicle for up to a radius of 50 miles. (Information exceeding 50 miles will not be displayed)
- The above list can be sorted by either Distance (Default) or Category.



③ The user can check points of accidents and traffic details.



② After selecting the desired menu among the six menus, press the **Done** button to save. Once returning to the previous List screen, the corresponding Category list will be shown and maintained until Category information is changed.

**(b) Changing Traffic Category**



② Select the desired **List** button.



① Press the **Category Select** button at No. 2.

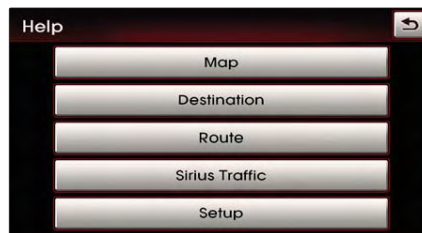
**PART 3 NAVIGATION SYSTEM**

**Help**

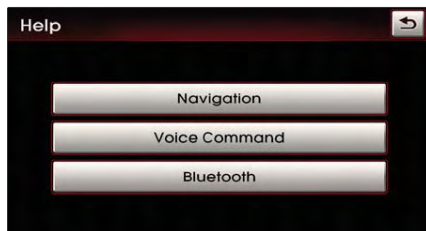
① Press the **SETUP** key.



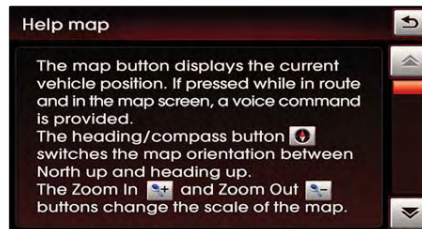
② Press the **Help** button.



④ Press the desired Help menu button.



③ Press the **Navigation** button.



⑤ The full content of the help section can be viewed by using the top-down scroll buttons.

## PART 3 NAVIGATION SYSTEM

### PART 3 NAVIGATION SYSTEM

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## PART 3 NAVIGATION SYSTEM

### Limitations of the navigation system

#### GPS signal reception state

- As the GPS satellite frequency is received /transmitted in straight lines, reception may not work if hiding devices are placed on or near the GPS antenna or when traveling through the following locations.



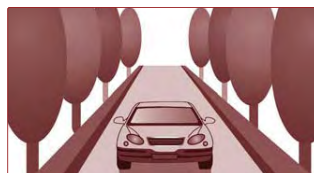
- Tunnels



- Basement parking structures



- Underneath an overpass



- Roads within forested areas



- Areas near high rise buildings



- Roads within canyons

### Vehicle position display

- If multipass errors occur due to reflections from buildings or related causes, the current position mark on the navigation may differ from the actual position of the vehicle.
- The position of the vehicle on the navigation may be different from the actual position if the vehicle is under the following conditions. If such differences occur, driving for a short period of time will automatically correct the position of the vehicle through map matching or GPS information (several minutes may be necessary in certain cases).
  - When driving on a Y-shaped road with a narrow angle, the current position may be displayed in the opposite direction.
  - If the vehicle is loaded onto a ferry or a car transport vehicle, the current position mark may be stalled on the last position prior to loading.
- When driving on a spiral-shaped road.
- When driving in mountain regions with sharp turns or sudden brakes.
- When entering a road after having been in an underground parking structure, building parking structure, or turntable with many rotations.
- When the tires have recently been replaced (Especially upon use of spare or studless tires)
- If the battery terminal is removed.
- When driving in city streets, the current position may be displayed on the opposite side or on an off-road position.
- When changing the zoom level from the maximum zoom in level to a different zoom level, the current position mark may be displayed on a different road.
- When driving in heavy traffic with frequent go · stops in traffic or intersections.
- When driving under slippery conditions, such as heavy sand, snow, etc.
- When driving with the tire chain in place.
- When using a tire with an incorrect size specification.
- When the tire pressure for the 4 tires are different.
- When the replacement tire is a worn or used tire (Especially studless tires having passed a 2nd seasons, etc.)
- When driving near high-rise buildings
- If a roof carrier has been installed
- When driving under high speeds or having calculated a long-distance route.

## PART 3 NAVIGATION SYSTEM

### Route Guidance

- Suitable route guidance may not occur caused by search conditions or the driving position.
- Guidance to go straight may be given while driving on a straight road.
- Guidance may not be given even when having turned at an intersection.
- There are certain intersections in which guidance may not occur.
- A route guidance signaling for a U-Turn in a No U-Turn location may occur.
- A route guidance signaling entrance into a no enter zone may occur (No enter zone, road under construction, etc.).
- Guidance may be given to a position removed from the actual destination if roads to reach the actual destination do not exist or are too narrow.
- Faulty voice guidance may be given if the vehicle breaks from the designated route (ex: if a turn is made at an intersection while the navigation provided guidance to go straight).
- Map Data may be missing or incorrect causing route guidance to not be given.

### Route Re-calculation

- The following phenomena may occur after conducting route recalculation.
- Guidance may be given to a position differing from the current position when turning at an intersection.
- Route Recalculation may take a longer period of time when driving under high speeds.
- A route guidance signaling for a U-Turn in a No U-Turn location may occur.
- A route guidance signaling entrance into a no enter zone may occur (No enter zone, road under construction, etc).
- Guidance may be given to a position removed from the actual destination if roads to reach the actual destination do not exist or are too narrow.
- Faulty voice guidance may be given if the vehicle breaks from the designated route (ex: if a turn is made at an intersection while the navigation provided guidance to go straight)

## Starting navigation system



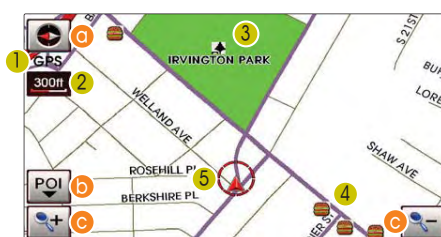
Press the Navigation mode key (MAPVOICE, DEST, ROUTE, SETUP). The Caution screen will always be displayed when first entering into Navigation mode. Read the contents of the caution screen carefully and press the **Agree** button.

## Map Functions

### Current position map screen (without route)



Press the **MAPVOICE** key on the control panel to display the map of current position and the neighboring area.



- 1 GPS signal state indicator : Displays the state of GPS signal reception.  
📍 [Viewing GPS signal state], page 3-7.
- 2 Map scale level indicator : Displays the current map scale.  
📏 [Changing the map scale], page 3-8.
- 3 Landmark icons : Landmark icons are displayed on the map when the map scale level is set to under 300 ft (100m depending on map data)  
📍 [Appendix : Landmark icons], page 7-11.
- 4 POI icons : POI icons are displayed on the map when the map scale level is set to under 0.5 mi (800m).  
📍 [Appendix : POI icons], page 7-8.
- 5 Current vehicle position icon : Displays the current position of the vehicle.

## PART 3 NAVIGATION SYSTEM

- a North Up / Heading Up switch : Displays the current map mode and the map mode can be switched between North Up and Heading Up.  
📍 [Switching map mode], page 3-6.
- b POI : Displays or hides the POI icon on the map.  
📍 [Displaying/Hiding POI icons on the map], page 3-9.
- c Map scale : Increases or decreases the map scale.  
📏 [Changing the map scale], page 3-8.

### Switching map mode (North Up / Heading Up)

Each time the compass button is pressed, the screen will switch in the order shown below.

Heading Up → North Up → Heading Up

#### **i** INFORMATION

All map screens (map screen after setting destination & whole route display screen) except the current position screen will always be displayed in North Up mode.



- North Up : displays the map always facing the North direction regardless of the direction which the vehicle is traveling.

The vehicle icon is displayed in the center position of the map.



- Heading Up : displays the map always facing the direction which the vehicle is traveling. The vehicle icon is displayed in the lower center position of the map.

### **🗣️** Voice Command

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"North Up"  
"Heading Up"

### Viewing GPS signal state

The state of GPS signal reception is displayed as shown below.

- **GPS (active) :**  
GPS reception is satisfactory.
  - **GPS (inactive) :**  
GPS reception is unsatisfactory.
- 📍 [System information and update], page 3-51.

### **i** INFORMATION

• **GPS (Global Position System) :** GPS is a system developed and operated by the United States which determines the current location of the user (longitude, latitude, etc.) by generally using 4 or more satellites. This system is used with related GPS information, various sensors, road map data, and other navigation related information.

- GPS information may not operate under the following conditions.
  - When buildings, tunnels, or other obstructions block satellite signals.
  - When materials are placed above the GPS antenna and block satellite signals.
  - When the satellite does not transmit signals (signal transmission is controlled by the satellite control center in the United States and may not transmit when under repair, modification, etc).
  - When a digital cellular phone (1.5GHz) is placed near the GPS antenna.
- This system uses GPS information, various sensors, road map data, and other related information to display the current position. Errors may occur if the satellite is transmitting inaccurate signals or if which can only two or less satellite signals can be received. Errors which occur in such conditions cannot be corrected.

## PART 3 NAVIGATION SYSTEM

### Changing the map scale

Press the or button. The map scale will be increased or decreased by one level.

### **i** INFORMATION

Each time the or button is pressed, the scale bar will be displayed.

The scale can be changed by directly pressing the scale level on the scale bar.


The green color on the scale bar indicates the current scale level while the orange color indicates the selected scale level.

- Press the or button for over 0.8 second. The scale will continuously change.
- If the scale range limit is reached, the or button will be disabled.
- The map scale range is between 1 and 14: 10,240,000 ~ 1 : 5,000.




Level	Actual distance	
	mi / ft	km / m
1	150 ft	50 m
2	300 ft	100 m
3	700 ft	200 m
4	0.25 mi	400 m
5	0.5 mi	800 m
6	1 mi	1.6 km
7	2 mi	3.2 km
8	4 mi	6.4 km
9	8 mi	12 km
10	16 mi	25 km
11	32 mi	50 km
12	64 mi	100 km
13	130 mi	200 km
14	250 mi	400 km

### Voice Command








1. Press the  key on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Zoom In"
  - "Zoom Out"
  - "Zoom Maximum"
  - "Zoom Minimum"
  - "Zoom level <1 to 14>"
  - "Zoom <actual distance>"
  - " (ex. Zoom 700ft)"

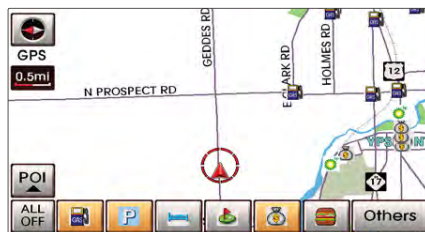
### Displaying / Hiding POI icons on the map


#### ■ Displaying/Hiding Q.POI icons

- 1 Press the  button.  
Related menu buttons will be displayed at the bottom of the screen.


#### INFORMATION

The Q.POI icons are set to  - Gas Station,  - Parking,  - Hotel,  - Golf Course,  - Bank,  - Fast Food (6 icons) by default. This setting can be changed in SETUP.  [Setting Q.POI icons], page 3-42.





- 2 Press the icon buttons to display or hide.  
To turn off all POI icons displayed on the map, press the  button.

### INFORMATION

- The current displayed POI icons are highlighted while the icons not being displayed are shown as normal buttons.
- If there are no POI icons being displayed, the  button will be disabled.
- POI icons are displayed when the scale is under 0.5 mi (800m).

#### ■ Displaying / Hiding icons other than Q.POI icons

- 1 Press the  button.  
Related menu buttons will be displayed at the bottom of the screen.
- 2 Press the  button.

#### INFORMATION

Q.POI stands for Quick POI and refers to the function which turns POI icon display on or off on the map.

## PART 3 NAVIGATION SYSTEM


### (a) by category list




- 3 Press the desired main category button.



- 4 Select the desired sub category menu to display or hide (Multiple selections are possible).  
Press the selected menu again to cancel the selection.

- 5 If the  button is pressed, the selected menus will be displayed or hidden on the map screen.

### Voice Command

1. Press the  key on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Show <POI name>" (ex. Show ATM)
  - "Hide <POI name>" (ex. Hide ATM)
  - "Hide All"

### Making a call to POI

After searching a POI, the POI phone number information can be used to make a call to the POI facility.

- 1 Use the various search methods, such as the map scroll function, Q.POI search function, and destination search function to search for a POI.



- 2 Press the  button.



3 Bluetooth is used to make a call to the POI facility.



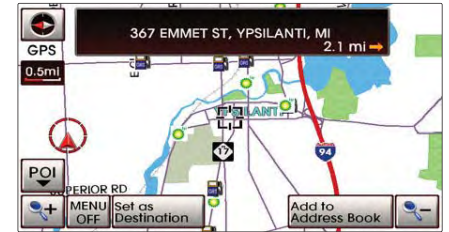
4 Once the call is ended, the map is restored to the current vehicle location.

**i INFORMATION**

- Making a call is not possible if there is no telephone information for a POI or if there is no mobile phone connected through Bluetooth.
- For more information of mobile phone authentication through Bluetooth or detailed information on conducting search, refer to [Pairing and connecting a Bluetooth phone], page 5-4.

**Scrolling map**

Press the map area on the map screen. The selected point will be centered on the screen and the scroll mark will be displayed. Information about the marked point and straight line distance from the current position will be displayed at the top of the screen.



**i INFORMATION**

If a map area on the map screen is pressed, the map will continuously scroll in the corresponding direction until the pressing is released.

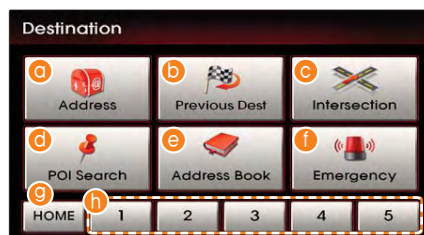
## PART 3 NAVIGATION SYSTEM

### Setting a destination

**Destination menu screen and functions**



Press the **DEST** key on the control panel to display the destination menu screen.



- a** Address : Sets the destination through address search.  
[Searching an Address], page 3-13.
- b** Previous Dest : Sets the destination through the previous destination list.  
[Searching a Previous Destination], page 3-17.
- c** Intersection : Sets the destination through intersection search.  
[Searching an Intersection], page 3-17.
- d** POI Search : Sets the destination through POI Category search.  
[Searching a POI], page 3-20.
- e** Address Book : Sets the destination through address book search.  
[Searching from Address book], page 3-24.

- f** Emergency : Sets the destination through emergency facilities search.  
[Searching for Emergency facilities], page 3-25.
- g** HOME : Sets the stored HOME as the destination.  
[Searching your Home], page 3-25.
- h** Favorite place **1** ~ **5** :  
Sets the destination with one of the stored favorite places.  
[Searching favorite places], page 3-26.

## Searching a Destination

### ■ Searching an Address

There are 2 ways to set the destination through address search-(a) by street, (b) by city.

① Press the **DEST** key.

② Press the **Address** button.



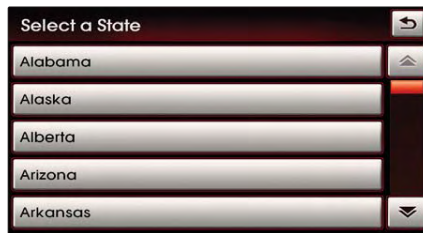
③ Press the **State** button to change the state.



④ Input the State name and press the **List** button.

If the number of matches with the input is less than 4 results, then the state list screen will be displayed automatically.

If the number of matches is only one result, then the state will automatically be changed without having to manually select the state.

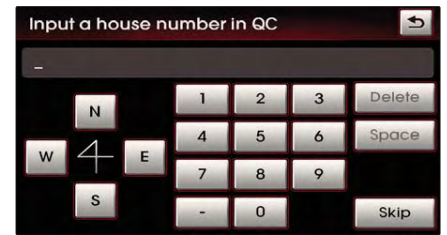


⑤ Select the desired state from the list to change the state.

(a) by street



⑥ Press the **Street** button.



## PART 3 NAVIGATION SYSTEM

⑦ Input the House number and Press the **Done** button to complete.

If the House number is not recognized, press the **Skip** button.

In this case, the range of house numbers will be displayed during the last step.



⑧ Input the Street name and press the **List** button.

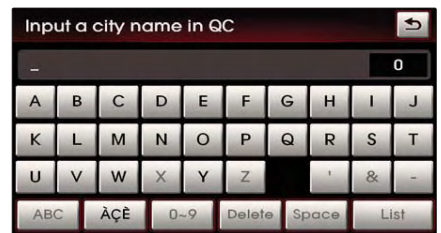
If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



⑨ If the desired street from the list is selected, the corresponding position will be displayed on the map.

### **i** INFORMATION

If more than 30 cities exist with the selected street, then the city input screen will be displayed. If less than 30 cities exist, then the city selection screen will be displayed.



⑩ Input the city name and press the **List** button to complete.

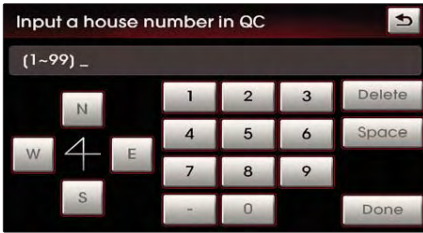
If the number of matches with the input is less than 4 results, then the list screen will be displayed automatically.



⑪ Select the desired city from the list.



12 This screen will be displayed if the House number had not been inputted during step 6 and more than 2 house numbers ranges exist. Select the desired House number range.



13 This screen will be displayed if the House number had not been inputted during step 6 and only one house numbers range exists.

Input the House number and press the **Done** button to complete. The corresponding position will be displayed on the map.

**(b) by city**



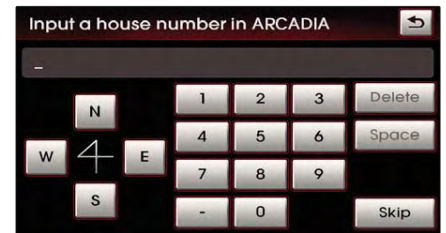
5 Press the **City** button.



6 Input the city name and press and press the **List** button. If the number of matches with the input is less than 4 results, then the city list screen will be displayed automatically.



7 Select the desired city from the list.



## PART 3 NAVIGATION SYSTEM

8 Input the house number and press the **Done** button to complete. If the House number is not recognized, press the **Skip** button. In this case, the range of house numbers will be displayed during the last step.



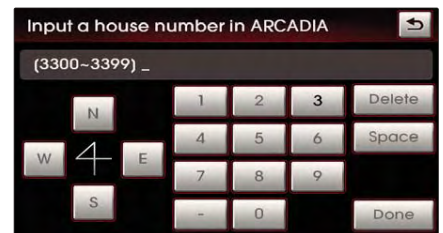
9 Input the Street name and press the **List** button to complete. If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



10 Select the desired street from the list and the corresponding position will be displayed on the map.



11 This screen will be displayed if the House number had not been inputted during step 8 and more than 2 House number ranges exist. Select the desired House number range.



12 This screen will be displayed if the House number had not been inputted during step 8 and only one House number range exists. Select the house number range and Press the **Done** button to complete. The corresponding position will be displayed on the map.

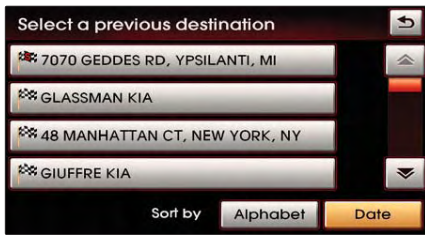
### Voice Command

1. Press the key on the steering wheel remote controller.
2. After the beep sound, say a command. "Find address"  
 [Find address], page 4-19.



### ■ Searching a Previous Destination

- ① Press the **DEST** key.
- ② Press the **Previous Dest** button.



- ③ Select the desired previous destination. The corresponding position will be displayed on the map.

### 🗣️ Voice Command

1. Press the **Voice** key on the steering wheel remote controller.
2. After the beep sound, say a command.
  - "Previous destination"
    - 🔊 [Previous destination], page 4-24.
  - "Previous start point"
    - 🔊 [Previous start point], page 4-25.

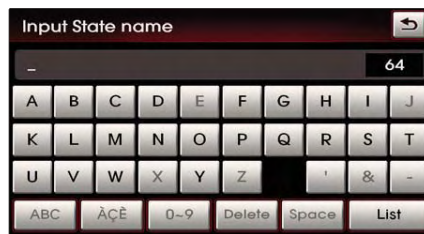
### ■ Searching an Intersection

There are two ways to set the destination through intersection search-(a) by street, (b) by city.

- ① Press the **DEST** key.
- ② Press the **Intersection** button.



- ③ Press the **State** button to change the state.



- ④ Input the state name and press the **List** button. If the number of matches with the input is less than 4 results, then the state list screen will be displayed automatically. If the number of matches is only one result, then the state will automatically be changed without having to manually select the state.



- ⑤ Select the desired state from the list to change the state.

## PART 3 NAVIGATION SYSTEM

### (a) by street



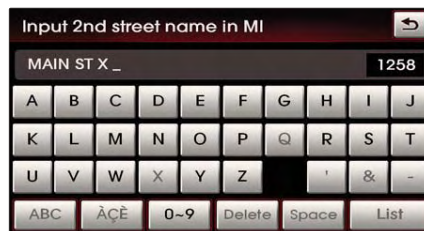
- ① Press the **Street** button.



- ② Input the name of the 1st street and press the **List** button. If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



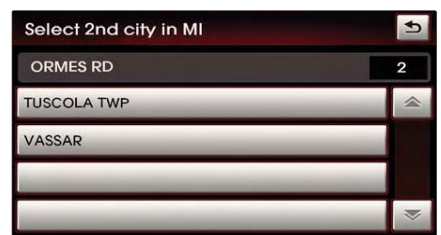
- ③ Select the desired 1st street from the list.



- ④ Input the name of the 2nd street and press the **List** button. If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



- ⑤ Select the desired 2nd street menu from the list. The corresponding position will be displayed on the map.



- ⑥ If the selected 2nd street is within more than 2 cities, then the city list screen will be displayed. Select the desired city menu from the list. The corresponding position will be displayed on the map.

**(b) by city**



⑥ Press the **City** button.



⑦ Input the city name and press the **List** button.

If the number of matches with the input is less than 4 results, then the city list screen will be displayed automatically.



⑧ Select the desired city name.



⑨ Input the name of the 1st street and press the **List** button.

If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.



⑩ Select the desired 1st street menu from the list.



⑪ Input the name of the 2nd street and press the **List** button.

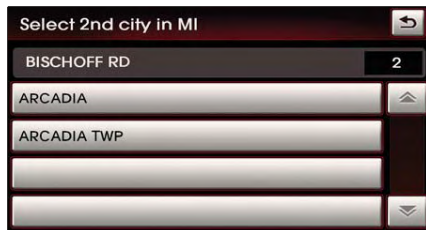
If the number of matches with the input is less than 4 results, then the street list screen will be displayed automatically.

## PART 3 NAVIGATION SYSTEM



⑫ Select the desired 2nd street menu from the list.

The corresponding position will be displayed on the map.



⑬ If the selected 2nd street is within more than 2 cities, then the city list screen will be displayed.

Select the desired city menu from the list. The corresponding position will be displayed on the map.

### ■ Searching a POI

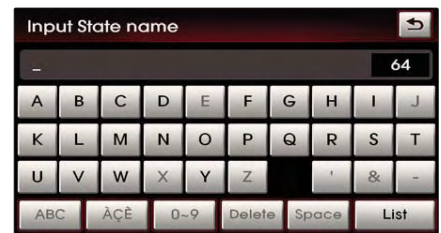
There are 3 ways to set the destination through POI search - (a) by category, (b) by name, (c) by phone number.

① Press the **DEST** key.

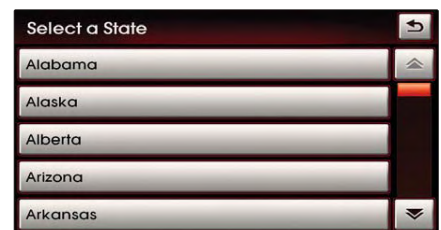
② Press the **POI Search** button.



③ Press the **State** button.



④ Input the state name and press the **List** button. If the number of matches with the input is less than 4 results, then the state list screen will be displayed automatically. If there is only one matching result, then the state will automatically be changed without having to manually select the state.



⑤ Select the desired state from the list to change the state.

**(a) By category**

Searches for facilities nearby the current position or from the city center.



6 Press the **Category** button.



7 Press the **Near current position** button to search for facilities nearby the current position, or press the **Near city center** button to search for facilities in the near city center.

**(a-1) Near current position**

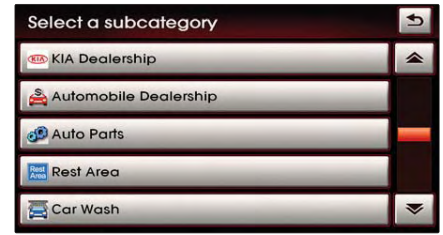
Searches for facilities within a 30 mi (45km) radius of the current position.



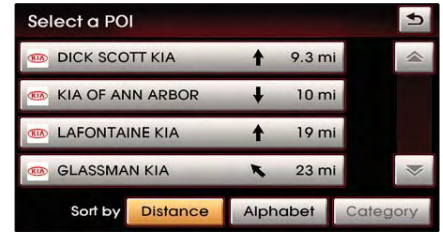
8 Press the desired main category menu.

**Voice Command**

1. Press the key on the steering wheel remote controller.
2. After the beep sound, say a command.  
"Find nearest POI"  
 [Find nearest POI], page 4-20.



9 Press the desired sub category menu.



10 Select the desired menu button. The corresponding position will be displayed on the map.

**PART 3 NAVIGATION SYSTEM**

**(a-2) Near city center**

Searches for facilities from the city center.

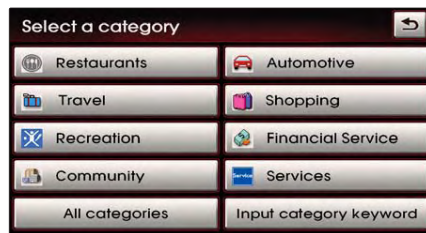


8 Input the city name and press the **List** button.

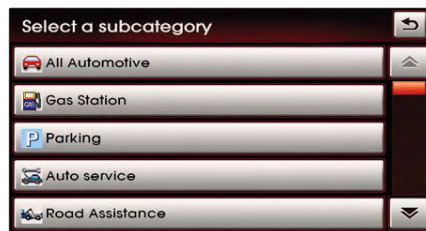
If the number of matches with the input is less than 4 results, then the city list screen will be displayed automatically.



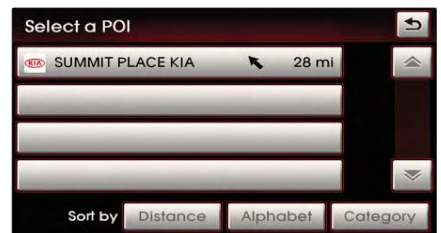
9 Press the desired city menu.



10 Press the desired main category.



11 Press the desired sub category.



12 Select the desired menu button. The corresponding position will be displayed on the map.

**i INFORMATION**

The distance on each POI item button refers to the distance from the city center.

**(b) By name**



⑥ Press the **Name** button.



⑦ Input the name of the POI and press the **List** button.

If the number of matches with the input is less than 4 results, then the facilities list screen will be displayed automatically.



⑧ Select the desired POI menu.

The corresponding position will be displayed on the map.

**i INFORMATION**

When necessary, the search conditions for the city and category can be changed by pressing the **Advanced** button.



**• Changing City**

- ① Press the **City** button.
- ② Input the city name and press the **List** button.
- ③ Select the desired city name.

**• Changing Category**

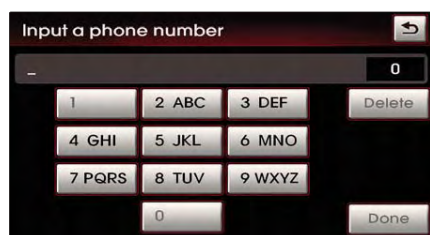
- ① Press the **Category** button.
- ② Select the desired main category menu.
- ③ Select the desired sub category menu.

**(c) By phone number**



⑥ Press the **Phone #** button.

**PART 3 NAVIGATION SYSTEM**



⑦ Input the phone number and Press the **Done** button to complete.

The corresponding position will be displayed on the map.

**🗣️ Voice Command**

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command. "Destination POI by Phone Number"  
📍 [Destination POI by phone number], page 4-22.

**■ Searching from Address book**

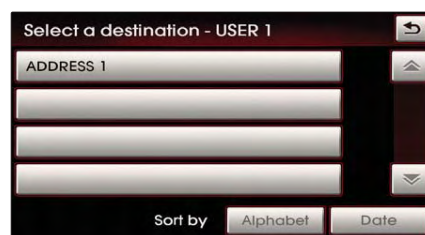
- ① Press the **DEST** key.
- ② Press the **Address book** button.



③ Select the desired address book (user) menu.

**i INFORMATION**

This system provides 5 address books. Each addresses book can hold up to 200 entries.



④ Select the desired address name from the list.

The corresponding position will be displayed on the map.

📍 [Registering new address in address book], page 3-43.

**🗣️ Voice Command**

1. Press the **🗣️** key on the steering wheel remote controller.
2. After the beep sound, say a command. "Destination by address book"  
📍 [Destination by address book], page 4-24.