

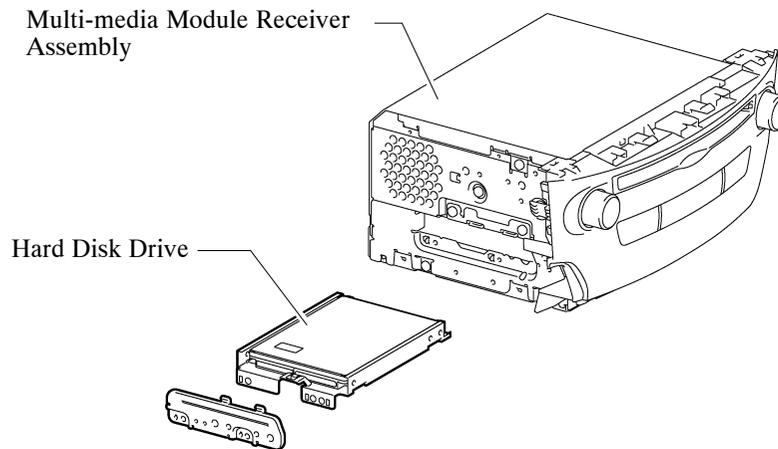
■ NAVIGATION SYSTEM

1. Major Difference

- The DVD type navigation system has been discontinued.
- A new model HDD navigation system is available.
- The display and navigation module display has been discontinued. Instead, the multi-media module receiver assembly, which integrates the navigation ECU and radio receiver assembly, is provided.

2. HDD Navigation System

- The display is a wide 7.0-inch Liquid Crystal Display (LCD) with a pressure sensitive touch panel, offering improved ease of use.
- Light Emitting Diodes (LEDs) are used to provide mercury-free backlighting for the multi-display. This reduces the burden on the environment and ensures brightness.
- A Hard Disk Drive (HDD) is used for the multi-media module receiver assembly. The HDD is available separately, enhancing serviceability. For details, refer to the Repair Manual.



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- A multiple display function is provided. Due to this function, a map screen and air conditioning operation screen, and an audio screen or vehicle information screen can be displayed on the single screen simultaneously. (Models for Europe)
- This navigation system supports the connected services that enable a Point of Interest (POI) searched on the internet to be set as a destination or registered as a memory point. (Models for Europe)
- The navigation system supports a function used for the export/import of memory points. This function enables memory point data stored on the multi-media module receiver assembly to be transferred to another navigation system (such as another multi-media module receiver assembly) via a USB memory device.

3. Specification

| Component | | Destination | | | |
|---------------------|-------------------|--|-----------|-----------|------------------|
| | | HDD Navigation System | | | |
| Destination | | Europe | Australia | Taiwan | G.C.C. Countries |
| Multi-display | | 7.0-inch Wide LCD | | | |
| Navigation Computer | | Pioneer | | | |
| Hard Disk Drive | | Aisin AW | DENSO | DENSO | Aisin AW |
| Gyro Sensor | | Piezoelectric Ceramic Element | | | |
| Map Data Media | | HDD (Capacity 100 GB) | | | |
| Languages Supported | Voice Guidance | English, German, French, Italian, Spanish, Dutch, Norwegian, Swedish, Portuguese, Danish, Finnish, Polish, Greek, Russian, Czech, Romanian, Hungarian, Slovak, Turkish and Ukrainian | English | Taiwanese | English, Arabic |
| | Voice Recognition | English, German, French, Italian, Spanish, Dutch and Russian | | | |

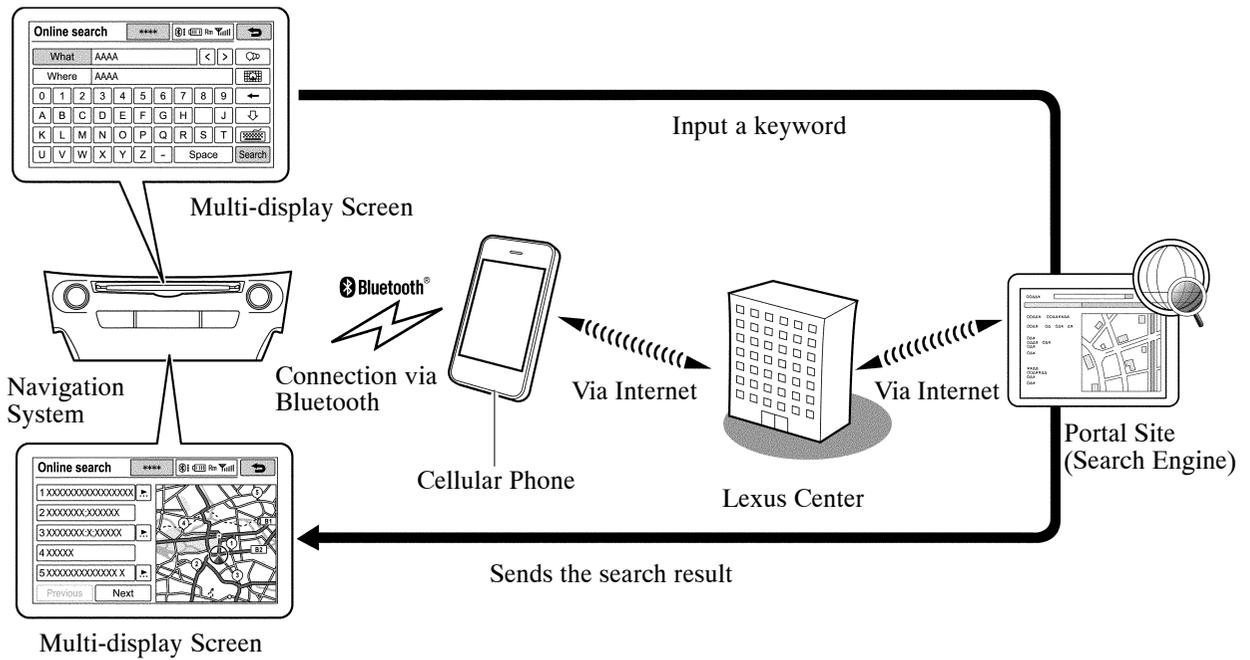
4. Main Features

Connected Services

- The following services are available by connecting the navigation system to the Lexus portal site via the internet using a cellular phone.
- To use these connected services, Bluetooth settings and a portal account are required.
- To get a portal account, access the Lexus portal site (URL:www.my.lexus.eu).

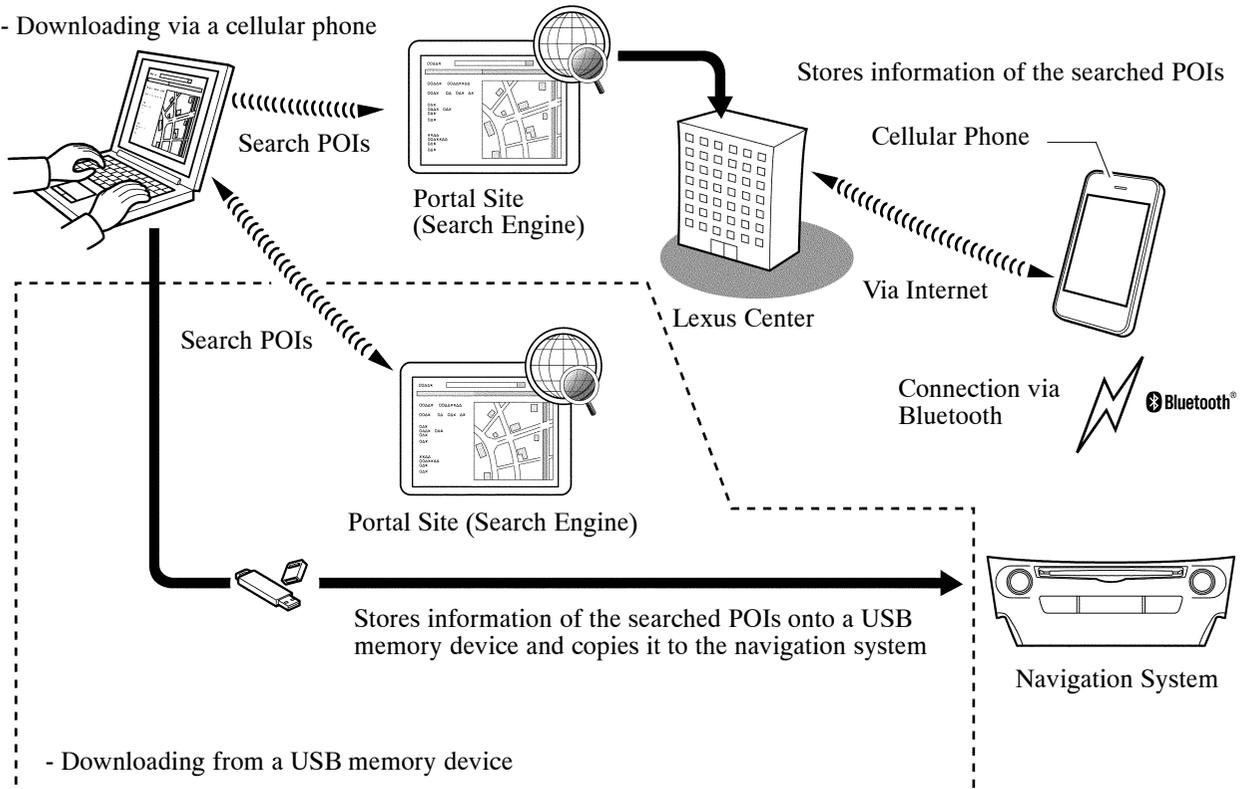
| Contents | | Outline |
|-------------------------|--------------------------------------|---|
| Online search | | New establishments, such as restaurants and bars, that are not registered in the navigation system can be set as a destination. |
| Importing memory points | Downloading via a cellular phone | Establishments that were searched for using a personal computer can be set as a destination and can be registered as memory points. |
| | Downloading from a USB memory device | |

Online Search:



Importing Memory Points:

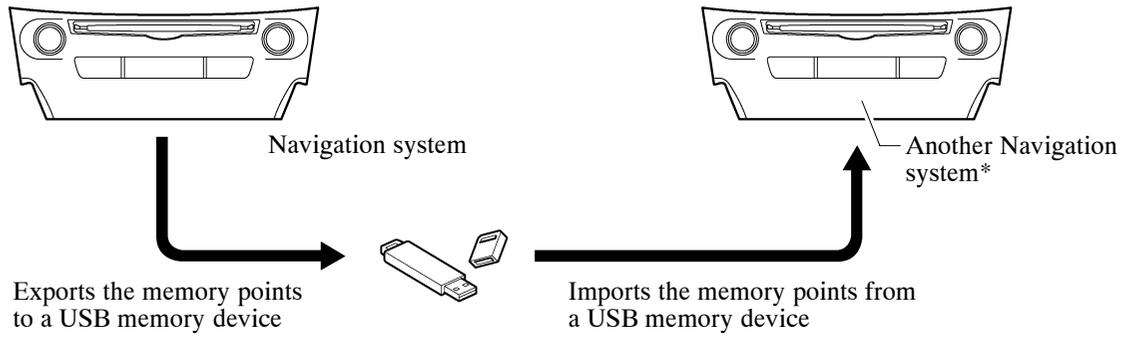
- Downloading via a cellular phone



Export/Import Memory Point Function

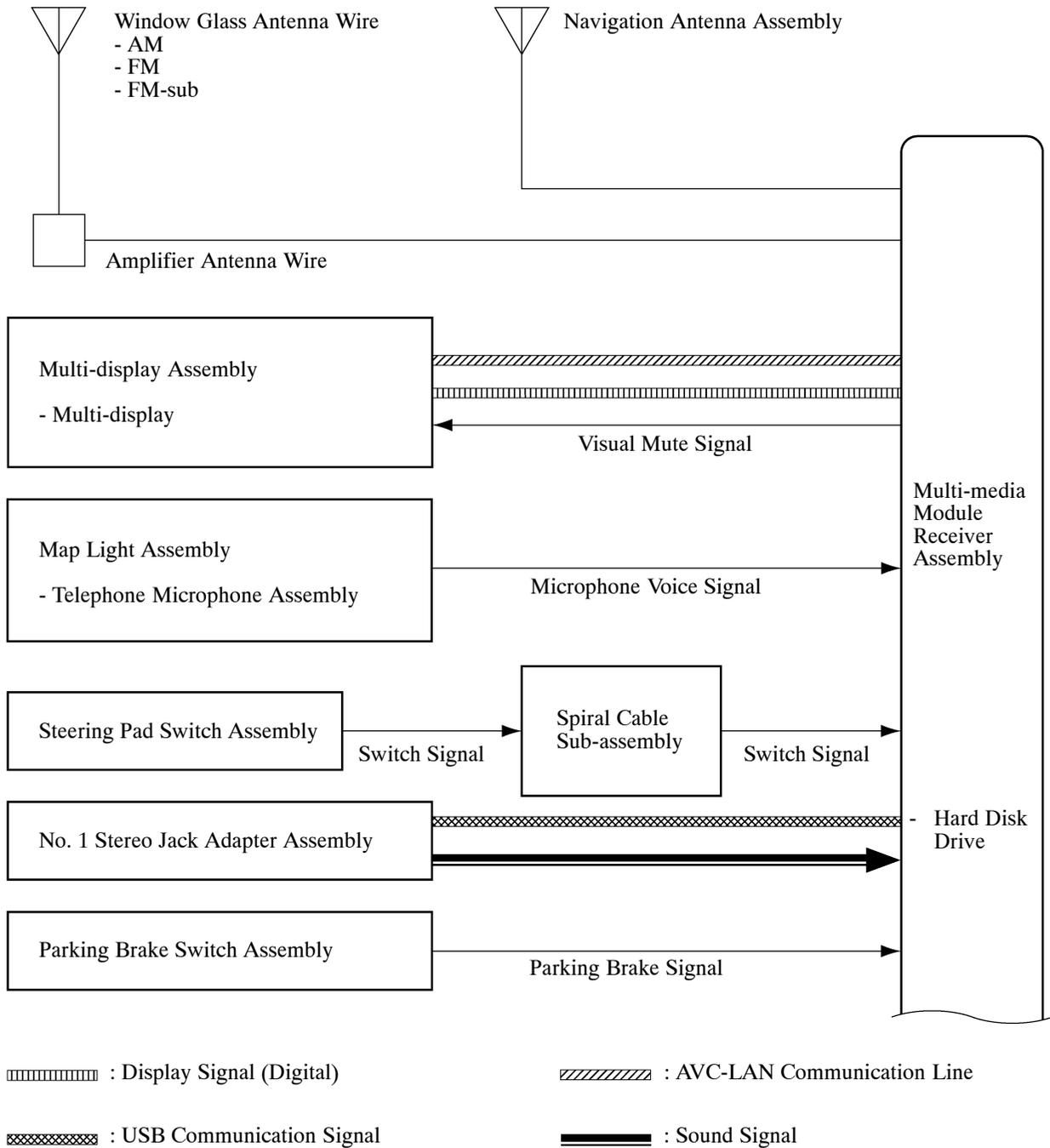
Memory point data stored in the multi-media module receiver assembly can be transferred to another navigation system, enabling information sharing.

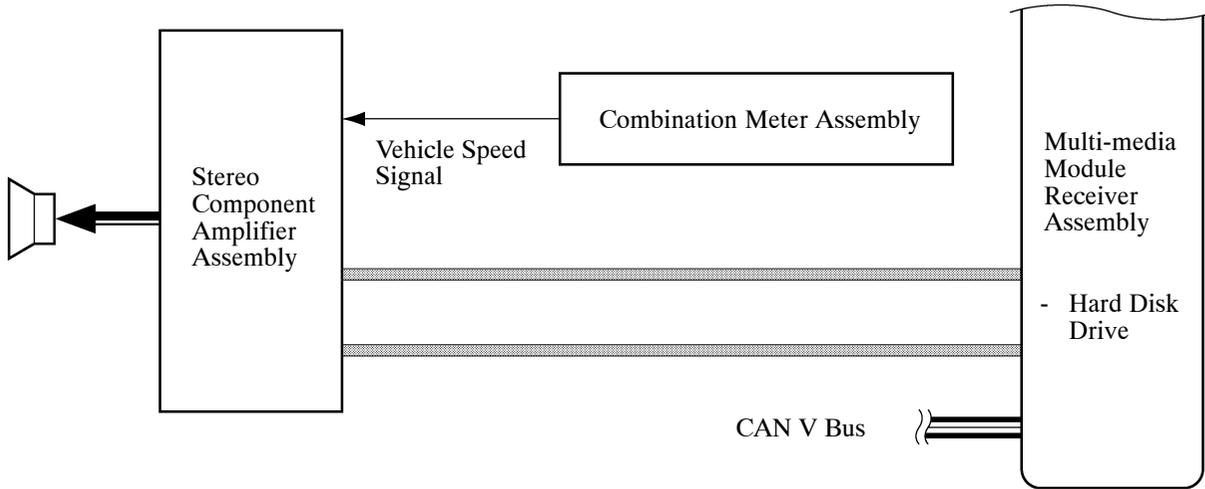
Export/Import Procedure for Memory Points:



*: Importing of memory points can be performed only on navigation systems that support the export/import memory point function.

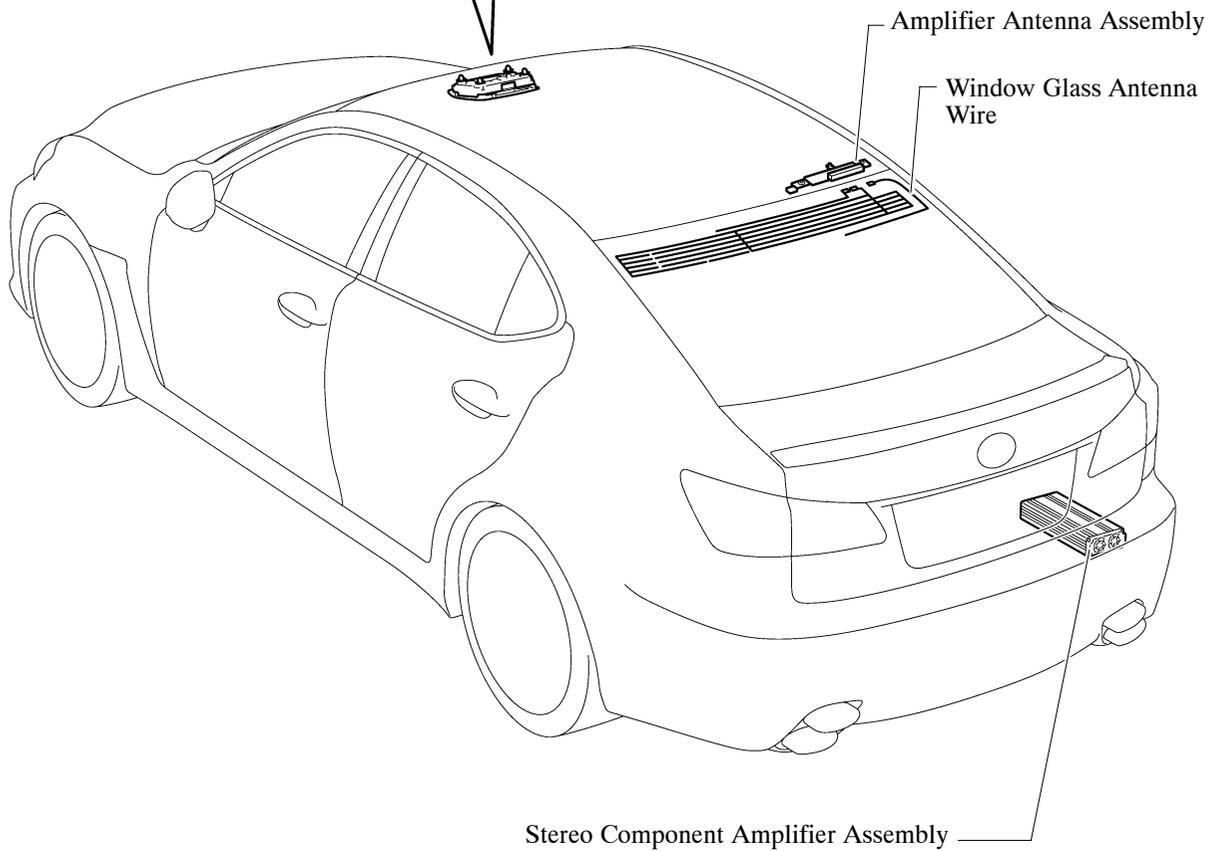
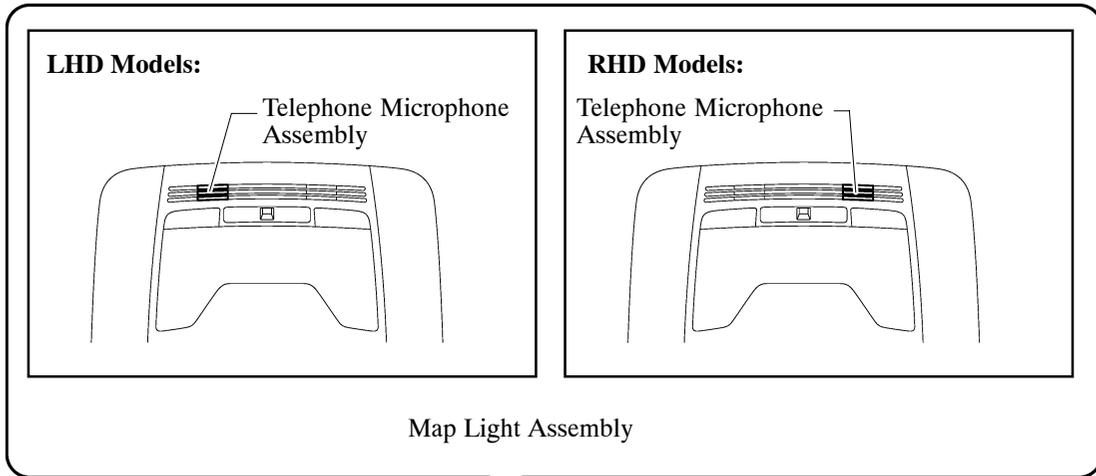
5. System Diagram



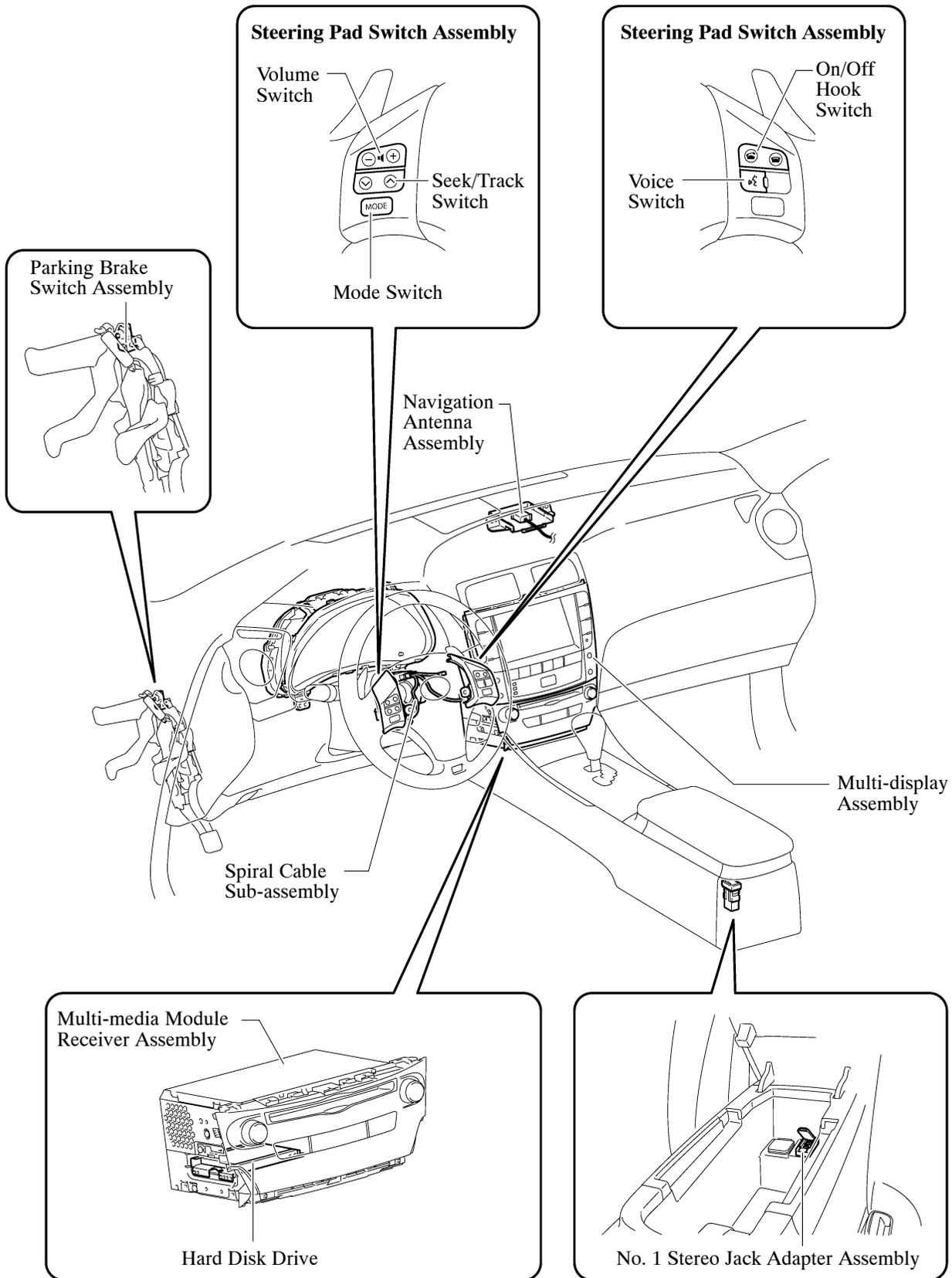


- ====** : Sound Signal
- ▨▨▨▨** : MOST Communication Signal
- ====** : CAN Communication Signal

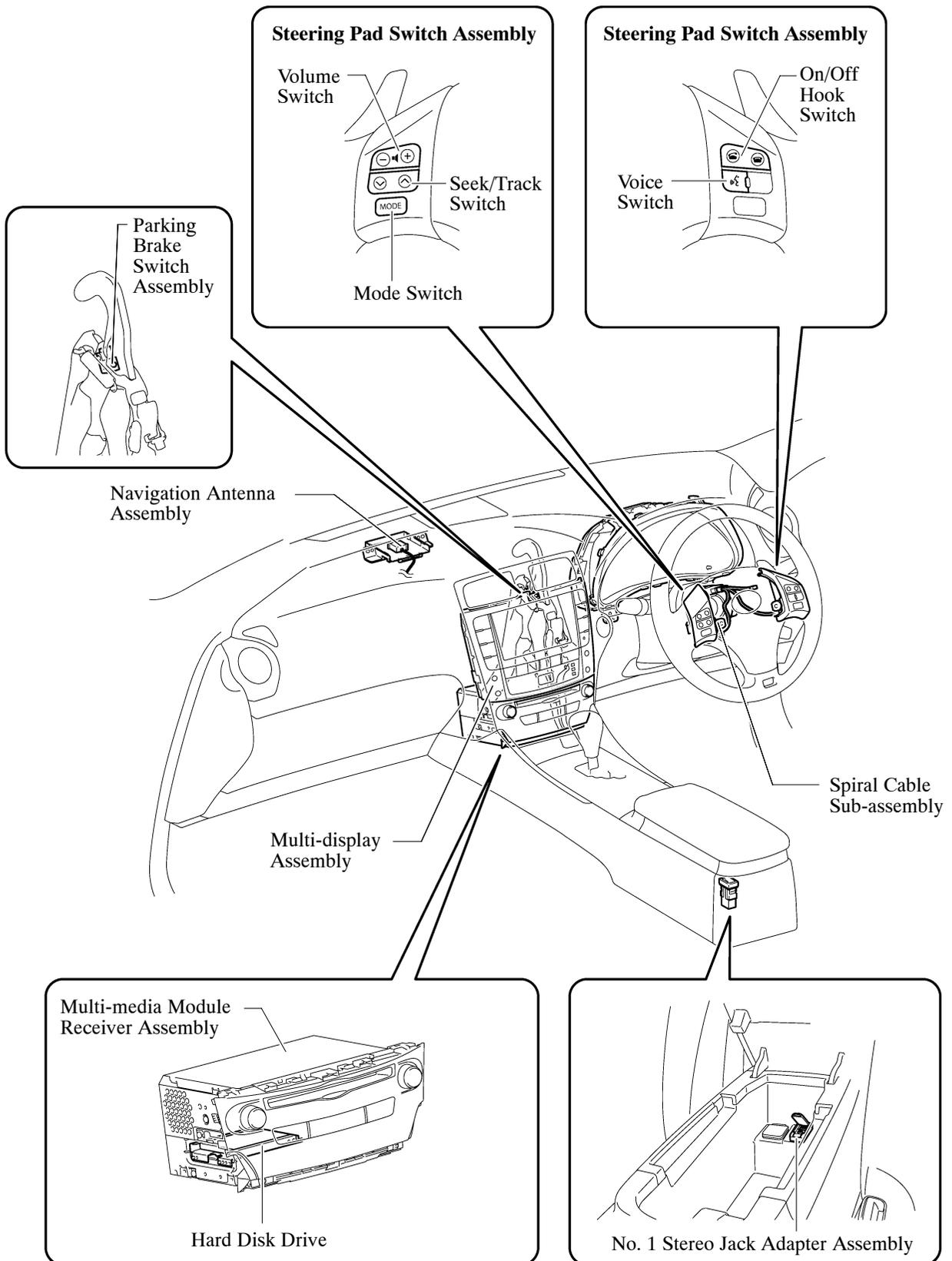
6. Layout of Main Components



LHD Models



RHD Models



7. Function

General

The main functions of the multi-display are listed below.

| Function | Outline |
|---|---|
| Navigation System | Through the use of the Global Positioning System (GPS) and map data which is stored on a HDD, the navigation system analyzes the position of the vehicle and indicates the position on the map that is displayed on the screen. In addition, it is possible to use the system to register memory points and navigate to a destination. |
| Audio/Video System | Serves as the display and controls for the following: <ul style="list-style-type: none"> • Radio operation • CD/DVD player operation • Bluetooth-compatible portable player operation • USB memory operation • iPod/iPhone operation • Portable audio player operation (AUX type) |
| Air Conditioning System | The operation and control of the air conditioning system can be performed through the use of the automatic air conditioning switches displayed on the multi-display. |
| Hands-free System | When a Bluetooth-compatible cellular telephone is registered to the multi-display, the driver can make and receive calls or talk hands-free on the cellular telephone by operating the switches on the screen/steering pad. |
| Speech Command System (Models for Europe and Destination Package for Australia) | Operates the navigation and audio, hands-free system based on voice commands. |
| Parking Assist Monitor System (Models with parking assist monitor system) | Displays parking guide lines to assist the driver in parking the vehicle and the rear view of the vehicle that is captured by the television camera mounted on the back door when the shift lever is moved to R. |
| LEXUS Parking Assist-sensor System (Models with LEXUS parking assist sensor system) | Detects obstacles and displays information on the multi-display to inform the driver. |

(Continued)

| Function | | Outline |
|----------|--|---|
| Others | Maintenance Information | <p>The maintenance information function can be used to inform the driver of the inspection or replacement timing for the following items based on the calendar function and distance driven.</p> <ul style="list-style-type: none"> • ENGINE OIL: Replace engine oil • OIL FILTER: Replace engine oil filter • ROTATION: Rotate tires • TYRES/Tyres: Replace tires • BATTERY: Replace battery • BRAKE PAD: Replace brake pads • WIPERS: Replace wiper blades • LLC: Replace engine coolant • BRAKE OIL: Replace brake fluid • AT FLUID/Trans. Fluid: Replace ATF • SERVICE: Scheduled maintenance • AIR FILTER: Replace air filter • PERSONAL: New information items can be created separately from the provided items |
| | Language Select (Models for Europe and G.C.C. Countries) | The language of the screen buttons, pop-up messages and the voice guidance can be changed. |
| | Beep Setting | The beep sound can be turned off. |
| | Button Color Setting | The button color can be changed. |
| | Screen Setting | <ul style="list-style-type: none"> • This enables the opening or screen off images to be changed to one copied from a USB memory device. • This enables automatic return to the navigation screen from the audio screen. |
| | Keyboard Layout | The keyboard layout can be changed. |

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| Function | | Outline |
|-----------|----------------------|--|
| Others | Delete Personal Data | <p>The following personal data can be deleted or returned to their default settings:</p> <ul style="list-style-type: none"> • Maintenance conditions • Maintenance information “off” setting • Memory point • Password settings for backing up and copying memory points (Models for Europe and G.C.C. Countries and destination package for Australia) • Areas to avoid • Previous points • Route guidance • Route trace (Models for Europe and G.C.C. Countries and destination package for Australia and Taiwan) • Phonebook data • Voice tag (Models for G.C.C. Countries and Destination package for Taiwan) • Call history data • Speed dial data • Bluetooth phone data • Telephone sound settings (Models for Europe and destination package for Australia) • Telephone display settings (Models for Europe and destination package for Australia) • Phone sound settings (Models for G.C.C. Countries and Destination package for Taiwan) • Phone display settings (Models for G.C.C. Countries and Destination package for Taiwan) • Message settings (Models for Europe) • Audio/video setting • Bluetooth audio setting • Search engine settings (Models for Europe) • Opening image data • Screen off image data |
| | Screen Adjustment | <p>The brightness or contrast of the screen can be adjusted to suit the brightness of the surroundings.</p> |
| Diagnosis | | <p>This menu contains the following items:</p> <ul style="list-style-type: none"> • Failure Diagnosis <ul style="list-style-type: none"> - System Check - HDD Check - Diagnosis Recorder • Function Check/Setting <ul style="list-style-type: none"> - Panel & Steering Switch - Touch Switch - Mic & Voice Recognition - Color Bar - GPS & Vehicle Sensors - Vehicle Signal - HF Voice Quality Setting - Camera Settings (Models with parking assist monitor system) • Service Information <ul style="list-style-type: none"> - Program Update - Version Information - Memory point backup |

Navigation Screen

- The navigation computer calculates the present position and direction of travel, then determines a route and calculates the driving distance based on the following information sources:
 - Map data in the HDD
 - Global Positioning System (GPS) satellites
 - Built-in gyro sensor
 - Vehicle speed signal
 - Reverse signal
 - Parking brake signal
 - Radio Data System Traffic Message Channel (RDS-TMC) Signal
- *: Models for Europe and destination package for Australia and Taiwan
- The functions of the navigation screen are listed below.

| | Item | Function | |
|------------------------------|---|---|--|
| Map Display | Linear Touch Scroll | Enables smooth scrolling by connecting the touch points on the screen. | |
| | Map Color Change*1 | Depending on the position of the light control switch, the screen changes to day mode or night mode. | |
| | Taillight-interlocked Map Color Change | Changes the color of the map screen that is displayed when the taillights are turned on. | |
| | North Up/Heading Up | <ul style="list-style-type: none"> • If North Up is selected, regardless of the direction of vehicle travel, north is always up. • If Heading Up is selected, the direction of vehicle travel is always up. | |
| | 3D Display*1, *2, *3 | Displays a 3-dimensional (3D) view of the map. | |
| | Multi-step Scale Display | Changes the map scale in 14 steps. | |
| | Direct Scale Change | Directly selects and displays the map scale. | |
| | Street Name Indication on Scrolled Map | Displays the street name and city name even when the map screen is being scrolled. | |
| | Stepless Scale Display | | Changes the scale of the map from the basic 14 steps to an even finer range of scales.*2, *3, *4 |
| | | | Changes the scale of the map from the basic 13 steps to an even finer range of scales.*1 |
| | Road Number Sign Board Display | Displays the road number on the map. | |
| | Point of Interest Display | Displays selected types of points of interest as marks on the map. | |
| | Home Screen Display*2 | Displays different modes on a screen that is split into 3 views. | |
| | Split-view Display*1, *3, *4 | Displays different modes on a screen that is split into 2 views. | |
| | Compass Mode Screen*2, *3, *4 | Displays the direction of travel and detailed data of the present location. | |
| Route Guidance Demonstration | Demonstrates the route guidance to the destination. | | |
| Route Trace | It is possible to store up to the last 124 miles (200 km) of a traveled route and retrace the route on the display. | | |

(Continued)

| | Item | Function |
|--|--|---|
| Map Display | RDS-TMC Display*1, *2, *3 | Displays RDS-TMC icons, arrows and indicators when RDS-TMC service is being received. |
| Destination Search | Preset Destination Memory Search | Sets a pre-registered point as a destination point while driving. |
| | Address Search | Information can be entered in the order of: province, city and street name.*1 |
| | | A destination can be set in 2 ways:*2, *3 <ul style="list-style-type: none"> • Information can be entered in the order of: street name, town and house number. • Information can be entered in the order of: town, street name and house number. |
| | | A destination can be set in 2 ways:*4 <ul style="list-style-type: none"> • Information can be entered in the order of: street name, city and house number. • Information can be entered in the order of: city, street name and house number. |
| | Point of Interest Search*1 | A destination can be set in 2 ways: <ul style="list-style-type: none"> • The name of a POI can be entered and then searched for after selecting a search area. Search areas include defined areas (such as a user selected country, state and city), near the current position, near the main destination, or along the current route. • A POI category can be selected and searched for near the current position, in a defined area (such as a user selected country, state and city), near the main destination, or along the current route. |
| | Hybrid Point of Interest Search*2, *3, *4 | Narrows the search by names of the point of interest, category and areas. |
| | Online Search | Allows use of an internet search engine to set a destination using the most up to date information.*2 |
| | Previous Destination Search | Stores the coordinates, names, and date of up to 100 locations that have been set as destinations in the past. |
| | Memory Point Search*1, *2, *3 | Sets a destination from the registered memory point. |
| | My Place Search*4 | Sets a destination from the registered my place. |
| | Intersection Search Intersection Search*2, *3, *4 | By specifying 2 streets, the point at which they intersect is set as the destination point. |
| | Motorway (Highway) Entrance or Exit Search | Searches for the destination by the name of the street that connects to a motorway (highway) entrance or exit. |
| | Map Search | A destination can be set by scrolling the cursor on the map. |
| Coordinate Search*2, *3, *4 | A destination can be input by entering its coordinates. | |
| Phone Number Search*1, *2 | A destination can be input by entering its phone number. | |
| Point of Interest Near Cursor Search*2, *3, *4 | A destination can be set by selecting the search point and point of interest category. | |

(Continued)

| | Item | Function |
|--------------------|--|---|
| Destination Search | Postal Code Search*2 | A destination can be input by entering its postal code. |
| | MAPCODE Search*1 | A destination can be set using a MAPCODE. |
| | Voice Recognition Search | A destination can be set up by voice command input.*2 “Home” can be set as a destination by voice command input.*3 |
| Route Search | Multiple Destination Setting | Sets multiple destinations. It can also rearrange the sequence of the destinations. |
| | Multiple Route Search | Searches for multiple routes. |
| | Search Condition Designation | Searches for the quick 1, quick 2, and short routes.*2, *3, *4 |
| | | Searches for the recommended route, the shortest route, a route that prioritizes the use of highways, a route that prioritizes the use of general roads, and the other route.*1 |
| | Detour Search | Changes the route to detour around a section of the route. |
| | Regulated Road Consideration | Performs searches which consider regulated roads. |
| | Avoidance Area | Searches for a route that avoids a designated area. |
| | Adjacent Road Search*2, *3, *4 | Searches for a route adjacent to the current road. |
| | Auto Avoid Traffic Search*1, *2, *3 | Automatically changes to another route to avoid heavy congestion. |
| Guidance | Voice Guidance | Provides voice guidance about the distance and the direction of travel to a destination point based on road conditions and vehicle speed. |
| | Next Turn Guidance*2, *3, *4 | Provides guidance about the distance to the next turn and indicates the direction of the turn using an arrow. |
| | Motorway (Highway) Mode Display | Display Displays the distance to the next junction and exit, or POIs in the vicinity of the motorway exit. |
| | Motorway (Highway) Direction of Travel Display | Displays the direction of travel to take on the motorway. |
| | Intersection Zoom-in Display | Zooms in the image when approaching an intersection. |
| | Turn List Display*2, *3, *4 | Displays a turn list on the right side of the 2-screen display. |
| | Arrow (Turn-by-Turn) Display*2, *3, *4 | Displays the direction of the next turn and the distance to the turn on the right side of the 2-screen display. |
| | Lane List Display*1 | Display a lane list on the right side of the 2-screen display. |
| | Distance-to-destination Display | Displays the distance from the present location to the destination. |
| | Estimated Arrival Time Display | Displays estimated arrival time. |
| Others | Voice Recognition*2, *3, *4 | Recognizes pre-programmed system commands spoken to operate the navigation system. |
| | Map Coverage Information Display | Displays the map area that is recorded in the HDD. |

*1: Destination package for Taiwan

*2: Models for Europe

*3: Destination package for Australia

*4: Models for G.C.C. countries

Information Screen

The functions of the information screen are listed below.

| Item | Outline |
|----------------------|--|
| Traffic Information* | By receiving the RDS-TMC service, a list of the current traffic incidents is displayed along with information on the incident's distance and position relative to the vehicle. |

*: Models for Europe and destination package for Taiwan

Setup Screen

The settings for the functions of the multi-display are available from the setup screen.

| Item | Function |
|------------------|---|
| General Settings | <ul style="list-style-type: none"> • Time zones and the on/off setting of daylight saving time. • The language can be selected.*1, *3 • The voice recognition language can be selected.*1 • The home screen display can be changed.*1 • The opening image can be changed: <ul style="list-style-type: none"> - An image that meets the following requirements can be displayed as the opening image by copying it from a USB memory device. File format: Jpeg file (extensions: .jpeg or .jpg) File size: 10 MB or less File name: 32 characters maximum (including file extension) • The screen off image can be changed: <ul style="list-style-type: none"> - An image that meets the following requirements can be displayed as the screen off image by copying it from a USB memory device. File format: Jpeg file (extensions: .jpeg or .jpg) File size: 10 MB or less File name: 32 characters maximum (including file extension) • The beep sound can be turned off. • Automatic return from the audio or air conditioning screen to the map screen after audio or air conditioning operation can be changed. • The color of the screen buttons can be changed.*1, *2, *3, *4 • Distance unit can be changed.*1 • Registered information (personal data) can be cleared. • Navigation system program can be updated.*1 • The set security mode on/off setting can be changed.*4 |
| Voice Settings | <ul style="list-style-type: none"> • The voice guidance volume can be adjusted or switched off. • Automatic volume settings for voice guidance while driving at high speeds can be set.*4 • Voice recognition talkback can be set.*1, *2 • Voice guidance while using the audio and visual system or air conditioning system can be set. • Voice guidance during route guidance can be set.*1, *2, *3 |

(Continued)

| Item | Function |
|---------------------|--|
| Navigation Settings | <p>The Navigation Settings can be used to:</p> <ul style="list-style-type: none"> • Set detailed online search settings such as:*1 <ul style="list-style-type: none"> - Synchronized settings of the online search portal site and navigation system - Pop-up message display during online search - Automatic accumulated data downloading settings from the portal site - Roaming pop-up message settings - Memorization settings of the user name and password used when connecting to the portal site - Search engine settings of the online search - Deletion of the online search history - Change of the user name and password used when connecting to the portal site - Deletion of the user name and password used when connecting to the portal site • Perform memory point related operations such as:*4 <ul style="list-style-type: none"> - Sets home - Sets preset destinations - Sets memory point - Sets area to avoid - Data can be stored on a USB memory device. - Data can be copied from a USB memory device. • Set detailed navigation settings such as:*4 <ul style="list-style-type: none"> - Visual city map display - Map color (day mode or night mode) - Character size on the map - Notification display of a point where 2 roads meet*4 - Scale switching message display - Travel time to the destination display the route guidance screen - Traffic information display on the navigation system's route*4 - Animated screen display - 6 icons to be displayed while driving - 3 different setting memorization for different users - Manual adjustment of the current vehicle position mark • Set detailed traffic information settings such as:*4 <ul style="list-style-type: none"> - Voice guidance for traffic information - Traffic information icon display - Avoid traffic events function - Traffic station selection - Station display that is currently received or has been selected • Delete previous destinations*4 • Show map data information*4 • Set detailed navigation settings such as average cruising speed*1, *2, *3 • Buttons displayed on the map screen when "OFF" is selected*2, *3 • Set detailed navigation settings such as displayed POI icon categories*1, *2, *3 • Set detailed navigation settings such as display of 3D landmarks*1 • Display cautionary messages when the route includes traffic restrictions or seasonally restricted roads.*1, *2, *3 • Displaying the speed limit of the road currently being used can be set*1 • The function that magnifies the map scale as the vehicle approaches a guidance point can be set*1 • Set the cautionary message display shown when a regulated street is included in the route.*1 • Set the display of pop-up information*1, *2, *3 • Set the railroad crossing advisory*2 • Set the high accident location guidance*2 • Manual adjustment of the current vehicle position mark*1, *2, *3 |

(Continued)

| Item | Function |
|--------------------|---|
| Vehicle Settings | <ul style="list-style-type: none"> • Settings can be changed for the following maintenance items: <ul style="list-style-type: none"> - Reminder - Engine oil - Oil filter - Rotation - Tires - Battery - Brake pad - Wipers - Coolant - Brake oil - Trans. fluid - Service - Air filter - Personal - Delete all - Reset all - Set dealer • LEXUS Parking Assist-sensor system adjustment.*5 |
| Telephone Settings | <ul style="list-style-type: none"> • Phone sound settings can be changed: <ul style="list-style-type: none"> - Call Volume - Ring Tone Volume - Ring Tone • Phonebook settings can be changed: <ul style="list-style-type: none"> - Transfer phonebook data (only available with Bluetooth phones that support PBAP or OPP) - Automatic phonebook download (only available with Bluetooth phones that support PBAP) - Automatic call history download (only available with Bluetooth phones that support PBAP) - Register phonebook data - Edit phonebook data (available with Bluetooth phones that do not support PBAP) - Delete phonebook data - Register speed dials - Delete speed dials - Delete call history - Manage Voice Tags*4 • Message function settings can be changed*1: <ul style="list-style-type: none"> - Message forwarding from cellular phones - New message notification display - New message voice notification - Adjust the new message notification volume - Select a new message voice notification tone - Automatic message read out - Adjust the message read out volume - Cellular phone's read and unread status update - Edit "Quick Reply messages" |

(Continued)

| Item | Function |
|---------------------------------|---|
| Telephone Settings | <ul style="list-style-type: none"> • Phone display settings can be changed: <ul style="list-style-type: none"> - Change the incoming call display - Display of the automatic phonebook transfer completion message (For PBAP compatible models) - Display of the automatic call history transfer completion message (For PBAP compatible models) - Display of images during calls (For PBAP compatible models) - Orientation of images displayed during calls (For PBAP compatible models) |
| Bluetooth Settings | <ul style="list-style-type: none"> • Bluetooth device registration settings can be changed: <ul style="list-style-type: none"> - Register a Bluetooth device - Delete the Bluetooth device - Edit the Bluetooth device • A registered Bluetooth compatible cellular phone can be selected. • A registered Bluetooth compatible device can be selected. • Information on a registered Bluetooth device can be displayed and the settings can be changed. • A Bluetooth DUN connection can be set up.*1 |
| Audio Settings | <ul style="list-style-type: none"> • Sound quality can be adjusted.*1, *2 • Radio setting can be changed:*1, *2, *3, *4 <ul style="list-style-type: none"> - Automatically seek an FM station that regularly broadcasts traffic information and the station broadcasts - An FM station providing good reception is automatically selected if current reception worsens. - Switching over to a broadcasting station within the same local program network. - A station providing good reception is automatically selected if current reception worsens.*1, *2 • iPod setting can be changed: <ul style="list-style-type: none"> - Display cover art when a song stored in an iPod is being played. |
| Traffic Information Settings *1 | <ul style="list-style-type: none"> • The voice guidance for traffic information can be switched off. • Traffic information icons can be displayed on the map. • Detour route function can be selected. • When searching for a route, a detoured route search that avoids traffic jams and so forth can be set. • When searching for a route, a detoured route search that avoids predicted traffic jams and so forth can be set. • The stations can be selected. |
| Traffic Information Settings*2 | <ul style="list-style-type: none"> • The voice guidance for traffic information can be switched off. • Traffic information icon display can be set. • Detour route function can be selected. • The stations can be selected. |

*1: Models for Europe

*2: Destination package for Australia

*3: Models for G.C.C. countries

*4: Destination package for Taiwan

*5: Models with LEXUS parking assist-sensor system

8. Diagnosis

For details on the procedure required to enter the Service Menu screen, refer to the Repair Manual.