

## ■ AUDIO

### 1. Major Difference

- The DVD type navigation system has been discontinued.
- A new model HDD navigation system is available.
- The panel design of the audio head unit has been changed.

### 2. HDD Navigation System

- The audio system shown below is available:

Audio System	Audio Head Unit	Speaker
HDD Navigation System	Multi-media Module Receiver Assembly	14 Speakers

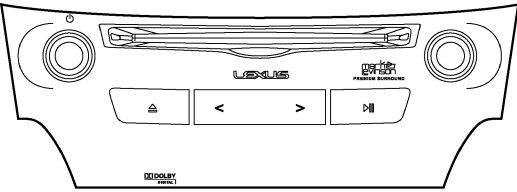
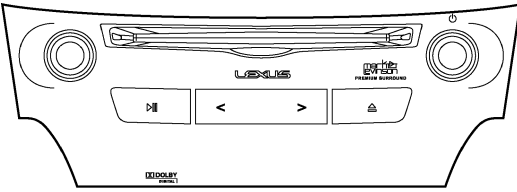
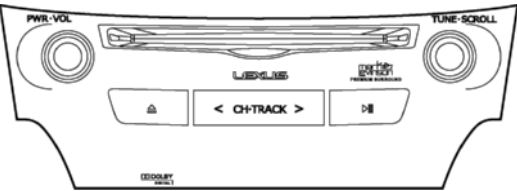
- In consideration of the unity with the instrument panel, a uniquely sized audio head unit is provided.
- A Thin Film Transistor Liquid Crystal Display (TFT LCD) is used for the multi-display of the HDD navigation system, enabling operation of the audio screen, Bluetooth hands-free screen, vehicle information screen, etc. using touch operation.
- Discs containing MPEG audio layer-3 (MP3) files and Windows Media Audio (WMA) files can be played.
- Discs with the marks shown below can be played.



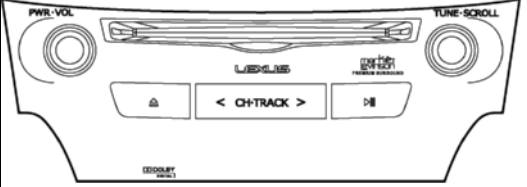
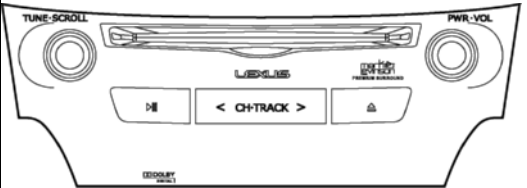
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### 3. Specification

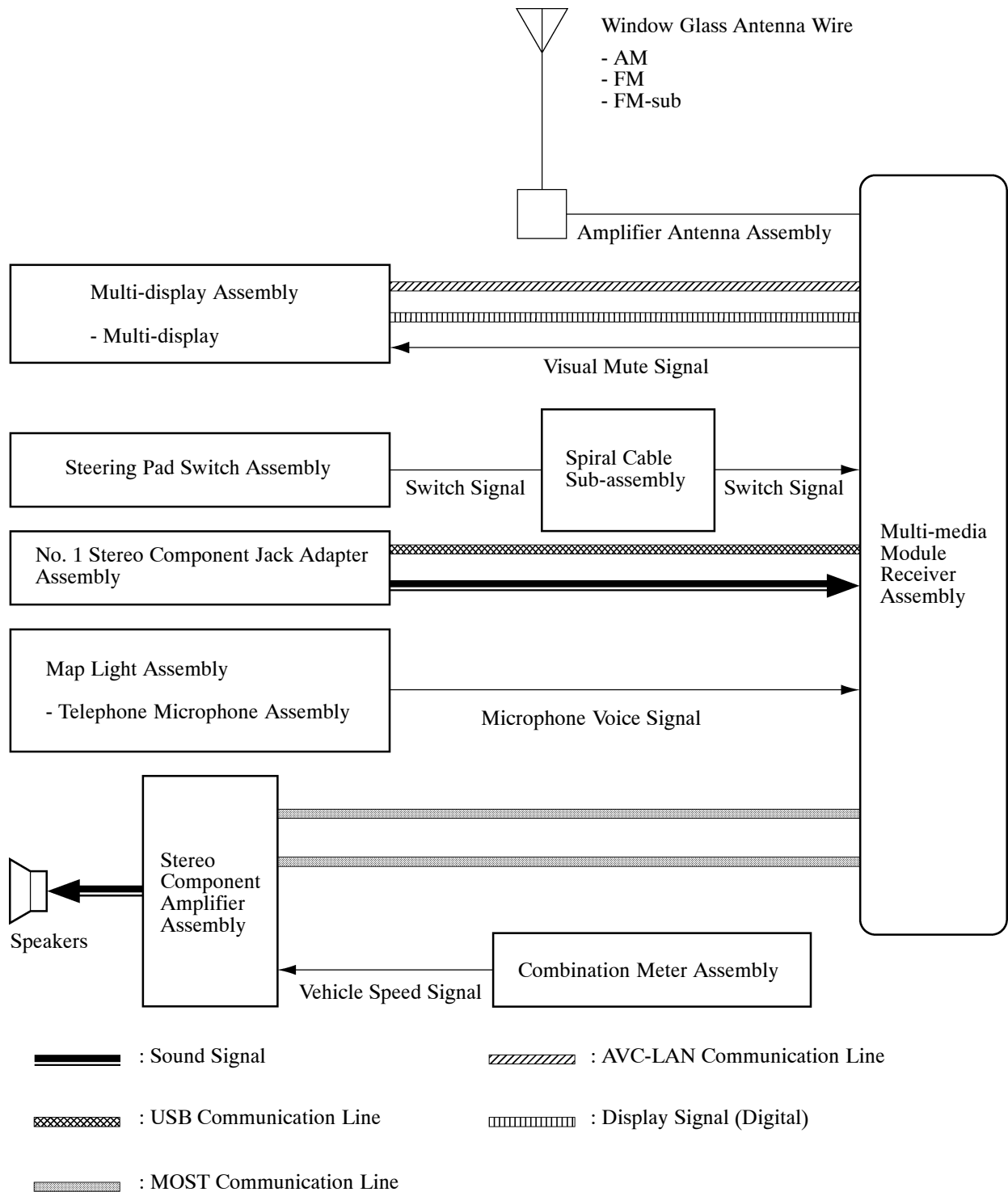
The HDD navigation system has been added as follows:

Design	Specification	Destination
 <p><b>LHD Models</b></p> <p>08E5NF10C</p>	<p>HDD Navigation System:</p> <ul style="list-style-type: none"> <li>• Display Language Supported: English, German, French, Italian, Spanish, Dutch, Norwegian, Swedish, Portuguese, Danish, Finnish, Polish, Greek, Russian, Czech, Romanian, Hungarian, Slovak, Turkish and Ukrainian</li> <li>• AM/FM Tuner</li> <li>• Radio Data System Traffic Message Channel (RDS-TMC) Tuner</li> <li>• Digital Sound Processor (DSP)</li> <li>• Automatic Sound Levelizer (ASL)</li> <li>• DVD Player: Compatible with MP3 and Windows Media Audio (WMA) files</li> <li>• Bluetooth Audio</li> <li>• Bluetooth Hands-free System</li> <li>• Portable Audio Player (USB type) Interface</li> <li>• iPod/iPhone Interface</li> <li>• USB Memory Device Interface</li> <li>• Voice Recognition Search (USB Audio System)</li> <li>• Stereo Jack Adapter</li> <li>• 14-speaker System</li> <li>• Unit: Pioneer</li> <li>• Stereo Amplifier: Mark Levinson</li> </ul>	Europe
 <p><b>RHD Models</b></p> <p>08E5NF09C</p>		
 <p><b>Taiwan</b></p> <p>015BNF25C</p>	<p>HDD Navigation System:</p> <ul style="list-style-type: none"> <li>• AM/FM Tuner</li> <li>• Radio Data System Traffic Message Channel (RDS-TMC) Tuner</li> <li>• Digital Sound Processor (DSP)</li> <li>• Automatic Sound Levelizer (ASL)</li> <li>• DVD Player: Compatible with MP3 and Windows Media Audio (WMA) files</li> <li>• CD-TEXT Display Function</li> <li>• Bluetooth Audio</li> <li>• Bluetooth Hands-free System</li> <li>• Portable Audio Player (USB type) Interface</li> <li>• iPod/iPhone Interface</li> <li>• USB Memory Device Interface</li> <li>• Stereo Jack Adapter</li> <li>• 14-speaker System</li> <li>• Unit: Pioneer</li> <li>• Stereo Amplifier: Mark Levinson</li> </ul>	Taiwan

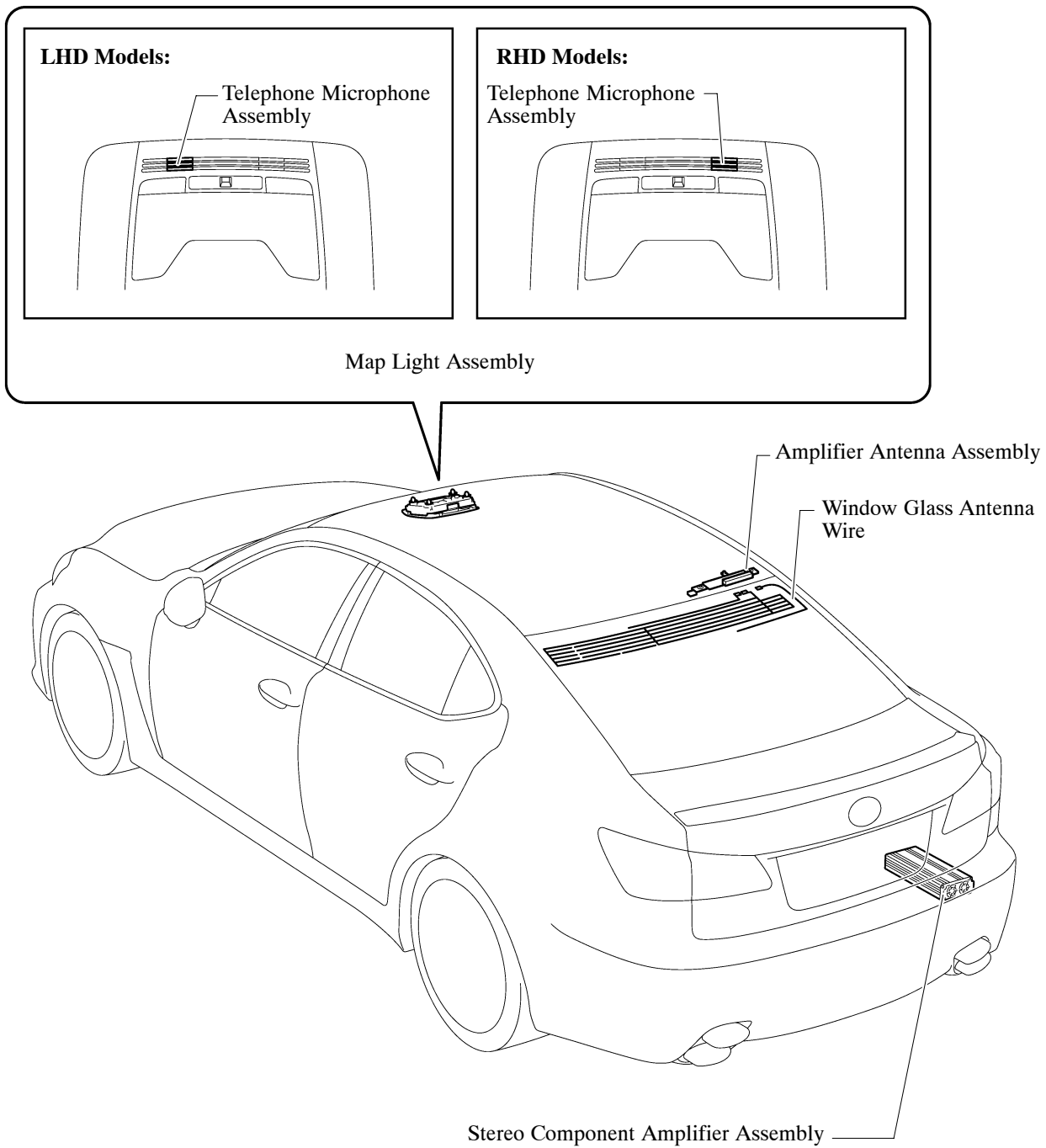
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Design	Specification	Destination
 <p>015BNF25C</p>	<p>HDD Navigation System:</p> <ul style="list-style-type: none"> <li>• Display Language Supported: English and Arabic</li> <li>• AM/FM Tuner</li> <li>• Digital Sound Processor (DSP)</li> <li>• Automatic Sound Levelizer (ASL)</li> <li>• DVD Player: Compatible with MP3 and Windows Media Audio (WMA) files</li> <li>• CD-TEXT Display Function</li> <li>• Bluetooth Audio</li> <li>• Bluetooth Hands-free System</li> <li>• Portable Audio Player (USB type) Interface</li> <li>• iPod/iPhone Interface</li> <li>• USB Memory Device Interface</li> <li>• Stereo Jack Adapter</li> <li>• 14-speaker System</li> <li>• Unit: Pioneer</li> <li>• Stereo Amplifier: Mark Levinson</li> </ul>	<p>G.C.C. Countries</p>
 <p>015BNF22C</p>	<p>HDD Navigation System:</p> <ul style="list-style-type: none"> <li>• AM/FM Tuner</li> <li>• Radio Data System Traffic Message Channel (RDS-TMC) Tuner</li> <li>• Digital Sound Processor (DSP)</li> <li>• Automatic Sound Levelizer (ASL)</li> <li>• DVD Player: Compatible with MP3 and Windows Media Audio (WMA) files</li> <li>• Bluetooth Audio</li> <li>• Bluetooth Hands-free System</li> <li>• Portable Audio Player (USB type) Interface</li> <li>• iPod/iPhone Interface</li> <li>• USB Memory Device Interface</li> <li>• Voice Recognition Search (USB Audio System)</li> <li>• Stereo Jack Adapter</li> <li>• 14-speaker System</li> <li>• Unit: Pioneer</li> <li>• Stereo Amplifier: Mark Levinson</li> </ul>	<p>Australia</p>

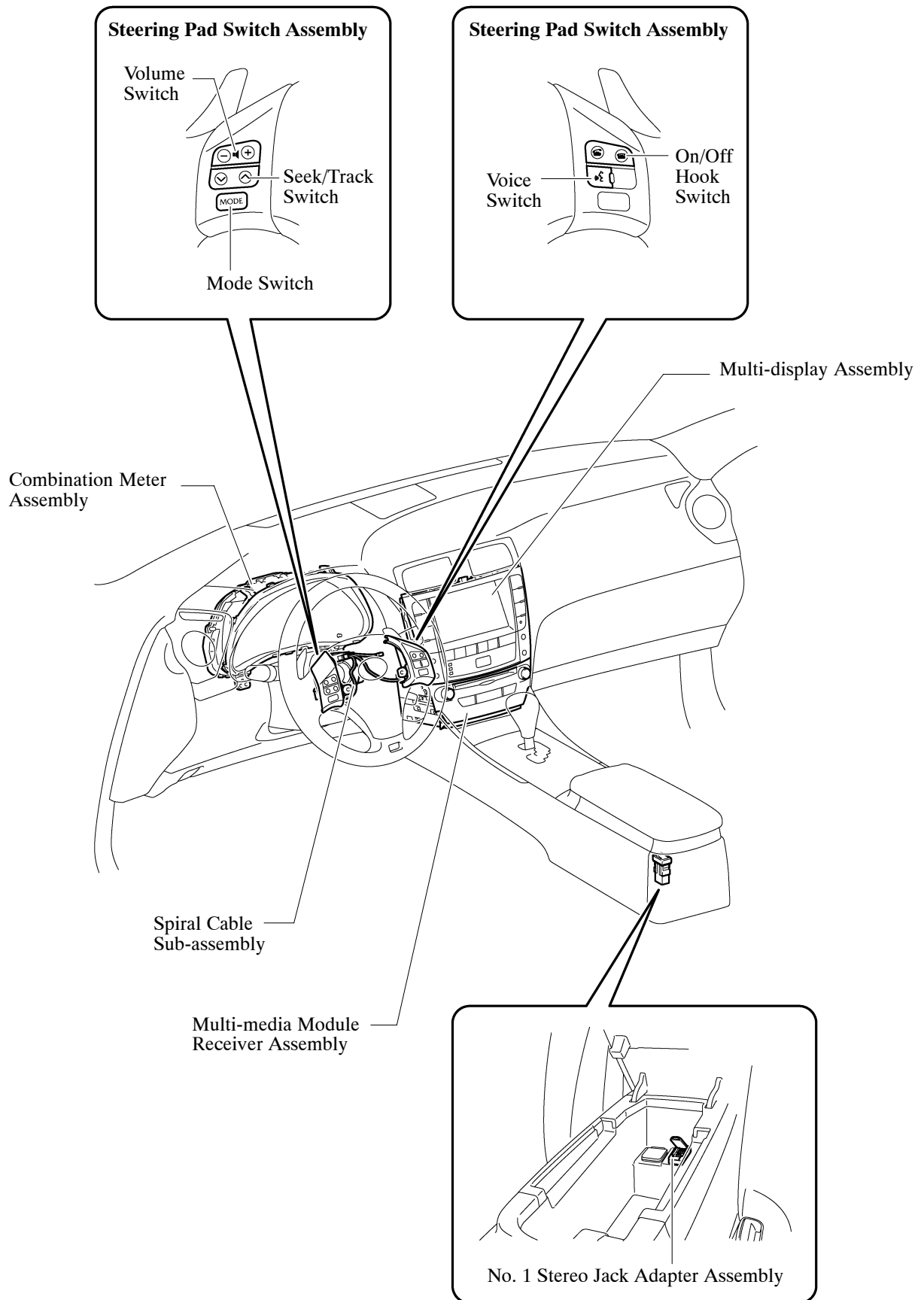
#### 4. System Diagram



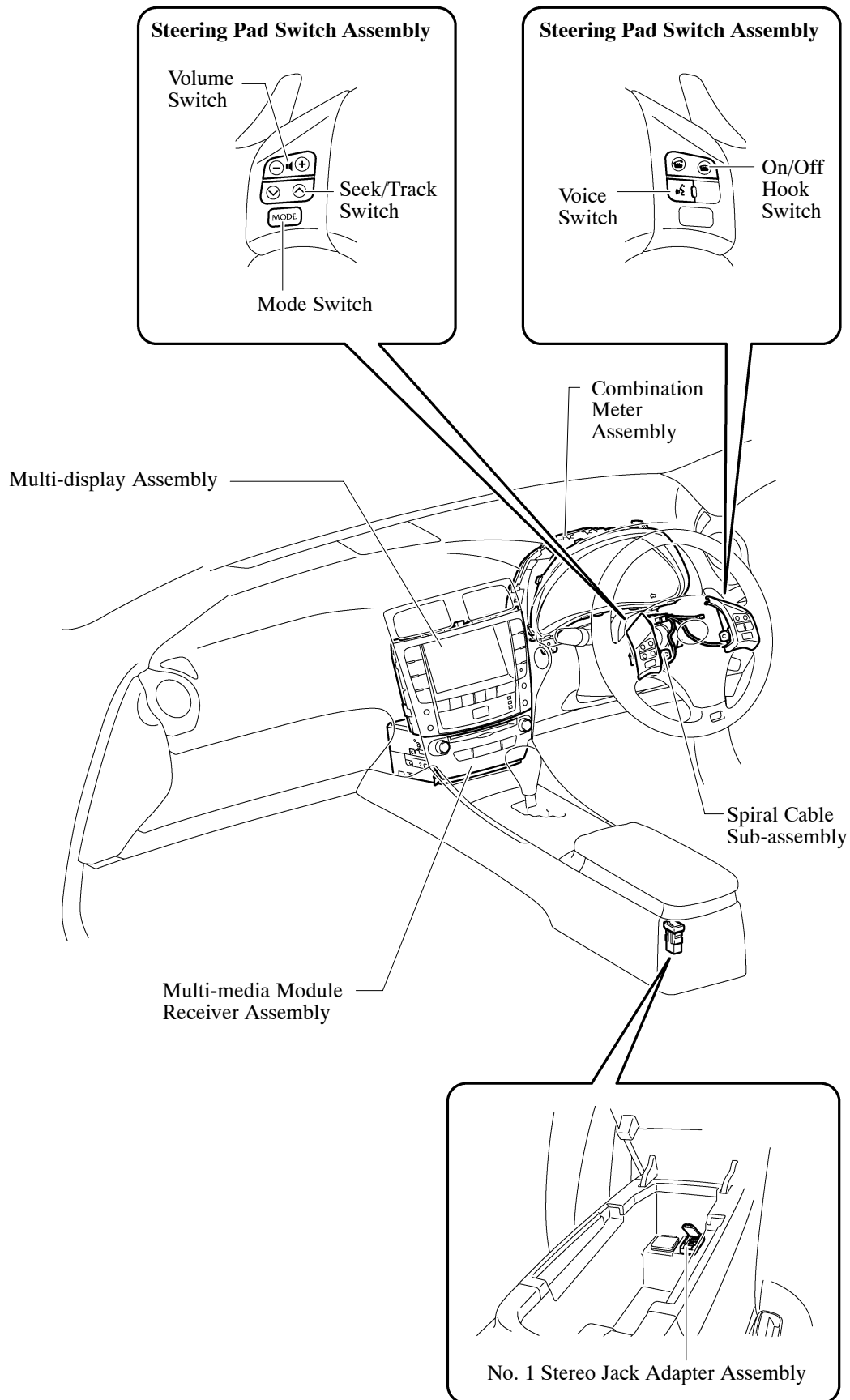
## 5. Layout of Main Components



## LHD Models



## RHD Models



## 6. Function

### Bluetooth Audio System

- The functions of the Bluetooth audio system that can be used vary with the version of the Audio/Video Remote Control Profile (AVRCP) supported by the Bluetooth audio player that is being used.
- The available Bluetooth audio system functions differ in accordance with each Audio/Video Remote Control Profile (AVRCP) as follows:

Function	Outline	Audio/Video Remote Control Profile (AVRCP)		
		Version 1.0	Version 1.3	Version 1.4 or higher
Play	Starts playing the music.	○	○	○
Stop	Stops playing the music.	○	○	○
Pause	Pauses the music.	○	○	○
Track Up/Down	Changes the track.	○	○	○
Fast Up/Down	Fast-forwards or reverses.	○	○	○
Album Up/Down	Changes the album.	-	○	○
Repeat (Single Repeat)	Repeats the selected music.	-	○	○
Random (All Track Random)	Plays all the music in the portable audio device at random.	-	○	○
Scan (All Track Scan)	Scans all the music in the portable audio device.	-	○	○
Music Information	Shows track number, playtime, track name, artist name and album name.	-	○	○
Remaining Battery Level	Shows the remaining battery level of the Bluetooth audio player.	-	○	○
Music List	Shows the music list.	-	-	○

○: Applicable

-: Not applicable

- Other functions are as follows:

Function		Outline
Setting Bluetooth Audio Player	Registering a Bluetooth Audio Player	In order to use the Bluetooth audio system with a Bluetooth audio player, it is necessary to register it in the audio head unit. Once a Bluetooth audio player is registered, the Bluetooth audio system connects automatically. The user can register up to 5 Bluetooth audio players.
	Deleting a Bluetooth Audio Player	The user can delete a Bluetooth audio player.
	Connecting a Bluetooth Audio Player	Enables the user to select whether to connect to the Bluetooth audio player automatically or manually. If the Bluetooth audio player has been registered and automatic connection is enabled, the Bluetooth audio player will be connected automatically.

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Function		Outline
Changing Settings of Bluetooth Audio	Selecting a Bluetooth Audio Player	If the user has registered a second Bluetooth audio player, either one can be selected for connection.
	Displaying a Bluetooth Audio Player	The user can view the information of the Bluetooth audio player on the system.
	Changing the Connection Method	Enables the user to select the connection method. With this function, the user determines whether to make a connection from the audio head unit to the Bluetooth audio player or from the Bluetooth audio player to the audio head unit.
	Displaying the Bluetooth Audio Setting	The user can see the Bluetooth audio information settings on the system.
	Changing the Device Name or Passcode	The user can change a device name or a passcode.
	Initializing the Bluetooth Audio Settings	The user can initialize the settings.

### Bluetooth Hands-free System

- Bluetooth is a short-distance, high-speed wireless data communication system that uses the 2.4 GHz frequency band prescribed by the Bluetooth Special Interest Group (SIG).
- This system enables drivers to place or receive phone calls without operating a cellular phone.
- The Bluetooth hands-free system is included in the audio head unit.
- The major hands-free functions are shown in the following table:

Function			Multi-media Module Receiver Assembly
Calling with Bluetooth Phone	By Dialing		○
	By Phonebook		○ (1000 Items)*1
	By Call History*2	Dialed Number	○ (10 Items)
		Received Call	○ (10 Items)
		Missed Call	○ (10 Items)
		All Call History	○
	By Speed Dial*2		○ (18 Items)
	By Voice Recognition*2	Dialing by Name	○*3
		Dialing by Phone Number	○*3
		Dialing by Voice Tag	○*4
	By Point Of Interest (POI) Call		○
	By Short Message Service (SMS)/Multimedia Messaging Service (MMS)/e-mail		○*5

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Function			Multi-media Module Receiver Assembly
Receive with Bluetooth Phone/Talk on Bluetooth Phone	Receiving Call*2	Received Manually	○
		Refused	○
	Interrupt Call*2		○
	Tone Sending	By Dial	○
		By Registered Number	○
Receive and Reply Message with Bluetooth Phone	Receiving Message		○*3
	Replying (Quick Reply)		○*3
Recognition/Connection	Registering Bluetooth Phone		○ (5 Bluetooth Phones)
	Connecting Bluetooth Phone	Connected Automatically	○
		Connected Manually	○
Setting	Setting Automatic Connection		○

**HINT:**

○: Equipped

\*1: It is possible to have up to 1000 items per telephone (Bluetooth phone).

\*2: Can be performed while driving.

\*3: Models for Europe and destination package for Australia

\*4: Destination package for Taiwan and Models for G.C.C. countries

\*5: Models for Europe

- The hands-free functions of the multi-media module receiver assembly are shown in the following table. However, for safety, some functions may not be selectable when the vehicle is being driven.

Function			Outline
Calling with a Bluetooth Phone	By Dialing		The user can call by inputting a telephone number.
	By Phonebook		The user can call by using the phonebook data that has been transferred from the user’s cellular phone. The user can register up to 1000 items in the phonebook.
	By Call History*1	Dialed Number	The user can call by selecting a previously dialed number. The system remembers up to 10 dialed numbers. If more than 10 numbers have been dialed, the oldest number will no longer be remembered.
		Received Call	The user can call by selecting the telephone number of a received call. When a call is received, the system will remember the last 10 numbers. If more than 10 calls have been received, the oldest number will no longer be remembered.
		Missed Call	The user can call by selecting the telephone number of a missed call. The system remembers up to 10 missed call numbers. If more than 10 calls have been missed, the oldest number will no longer be remembered.
		All Call History	The user can call by selecting a telephone number from all call history.
	By Speed Dial*1		The user can call by using registered telephone numbers selected from the phonebook, dialed numbers or received calls.
	By Voice Recognition*1	Dialing by Name*2	The user can call by saying a name registered in the phonebook.
		Dialing by Phone Number*2	The user can call by saying a desired number.
		Dialing by Voice Tag*3	The user can call by saying a registered voice tag.
	By Point of Interest (POI)		The user can call by operating a switch when “Call” is displayed on the navigation screen.
Receiving a Call using a Bluetooth Phone*1			When a call is received, the receive screen is displayed with a sound.
Talking on a Bluetooth Phone*1			While the user is talking on the phone, the talking screen is displayed.

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Function		Outline
Changing Bluetooth Phone Settings	Speed Dial Registration	The user can register a desired telephone number from the phonebook, dialed numbers or received calls. Up to 18 speed dial numbers can be registered.
	Volume Settings	The user can set the volume.
		Automatic volume settings for high speed: When vehicle speed is 80 km/h (50 mph) or more, the volume automatically increases.
	Phonebook Settings	Transferring a telephone number: The user can transfer telephone numbers from the Bluetooth phone to the system. Up to 1000 data items (up to 3 numbers per entry) can be registered in the phonebook.
		Automatically transferring a telephone number: When a PBAP compatible phone is connected, the phonebook data of the phone can be automatically transferred.
		Registering phone numbers: The user can register phone numbers in the phonebook.*4
		Registering the phonebook data: The user can register the phonebook data.*4
		Adding data to the phonebook: The user can add data to the phonebook.*4
		Editing a name: The user can edit a name that has been entered. If no name has been entered, the number is displayed.*4
		Editing a phone number: The user can register a phone number to “Telephone no. 1”, “Telephone no. 2” or “Telephone no. 3”.*2
		Editing a phone number: The user can register a phone number to “Phone no. 1”, “Phone no. 2” or “Phone no. 3”.*5
		Editing data: The user can edit the registered data.*4
		Deleting data: The user can delete the data.*4
		Deleting all the phone data: The user can delete all the phone data.*4
		Deleting the call history data: The user can delete the call history data individually or all at once.*4
	Screen Settings	Receiving call display: The user can select the method of the receiving call display.
		The Bluetooth connection status at startup: When the engine switch is turned on (ACC) or on (IG) and the Bluetooth is automatically connected, the connection check will be displayed.
		Initializing the settings: The user can initialize the settings.

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Function		Outline
Registering and Selecting a Bluetooth Phone	Bluetooth Phone Registration	In order to use the hands-free function of a Bluetooth phone, it is necessary to register it in the multi-media module receiver assembly. Once a phone is registered, the hands-free function connects automatically. The user can register up to 5 Bluetooth phones.*6
	Bluetooth Phone Selection*1	When 2 or more registered Bluetooth phones are in the cabin, it is necessary to select which phone to use to prevent the lines from being crossed. Only the selected phone is available for use as a hands-free phone. The phone registered last is automatically selected.
	Bluetooth Information Confirmation and Editing	The user can set, change and initialize the information of the Bluetooth phone displayed on the screen.
	Deleting a Bluetooth Phone	The user can delete a registered Bluetooth phone from the multi-media module receiver assembly.
Bluetooth Phone Message*7	Checking Message	Transmits the messages (Short Message Service (SMS)/Multimedia Messaging Service (MMS)/e-mail) received on the Bluetooth phone to the audio head unit. The following functions are available for the transmitted messages. <ul style="list-style-type: none"> <li>• Display of the message text.</li> <li>• Reading out of the message.</li> <li>• Calling a Short Message Service (SMS)/Multimedia Messaging Service (MMS) message sender's phone number.</li> </ul>
	Reply Message	Replies to a message (Short Message Service (SMS)/Multimedia Messaging Service (MMS)/e-mail) received on the Bluetooth phone.
	Editing Reply Message	Edits the reply.
	Displaying Mail List	Displays the list of received messages (Short Message Service (SMS)/Multimedia Messaging Service (MMS)/e-mail).

\*1: Can be operated while driving.

\*2: Models for Europe and destination package for Australia

\*3: Destination package for Taiwan and Models for G.C.C. countries

\*4: Excluding PBAP

\*5: Models for G.C.C. countries

\*6: The maximum number of Bluetooth devices that can be registered (including Bluetooth phones and Bluetooth audio players)

\*7: Models for Europe