

■ MULTI DISPLAY

1. General

The multi display, which consists of a wide 7.0-inch Liquid Crystal Display (LCD) screen with a pressure sensitive touch panel, offers improved ease of use.

- The Hard Disk Drive (HDD) is provided as standard on the display and navigation module display on models for Europe.
- A USB port provided to enable playing music data that is stored on a USB memory stick or iPod.
- The language of the screen buttons, pop-up messages and voice guidance can be selected from the list below.

Support	Destination	
	Europe	Australia
<ul style="list-style-type: none"> • Language of the screen buttons • Language of the pop-up messages 	English, German, French, Italian, Spanish, Dutch, Norwegian, Swedish, Portuguese, Danish, Finnish, Polish, Greek, Russian	English
Voice guidance	English, German, French, Italian, Spanish, Dutch, Russian	English

- A hands-free function for a Bluetooth-compatible cellular telephone is used.



001SI50Y

Bluetooth is a trademark owned by Bluetooth SIG, Inc.

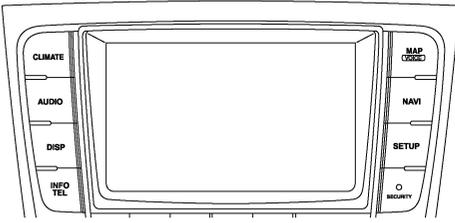
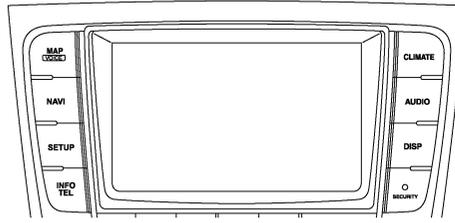
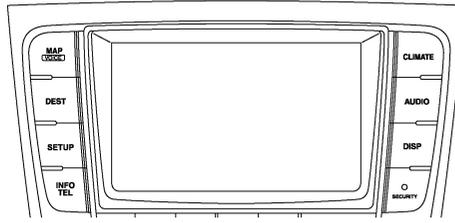
- Supported iPod models and firmware versions are listed below:

Supported iPod Model	Supported Firmware Version
iPod 5G	1.2 or more
iPod nano 1G	1.3 or more
iPod nano 2G	1.1.2 or more
iPod nano 3G	1.0 or more
iPod touch	1.1 or more
iPod classic	1.0 or more

- Unsupported iPod models are listed in the table below:

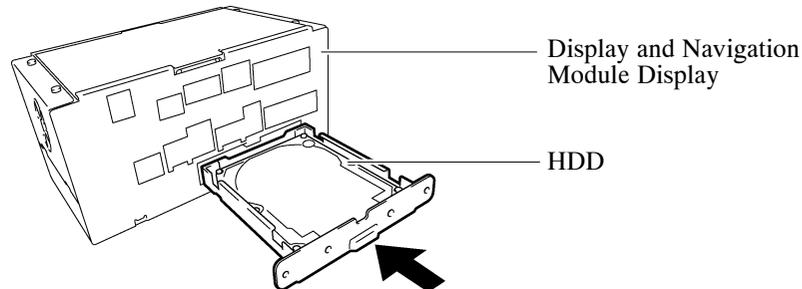
Unsupported Models	iPod shuffle
	iPhone
	iPod 1G, 2G, 3G, 4G
	iPod mini

- The multi-display design has been changed.

Multi-display Design		Destination
 <p>LHD Models</p> <p>08E2NF16C</p>	 <p>RHD Models</p> <p>08E2NF17C</p>	Europe
		Australia

Service Tip

The HDD for the display and navigation module display can be supplied separately, enhancing serviceability. For details, refer to the Repair Manual.

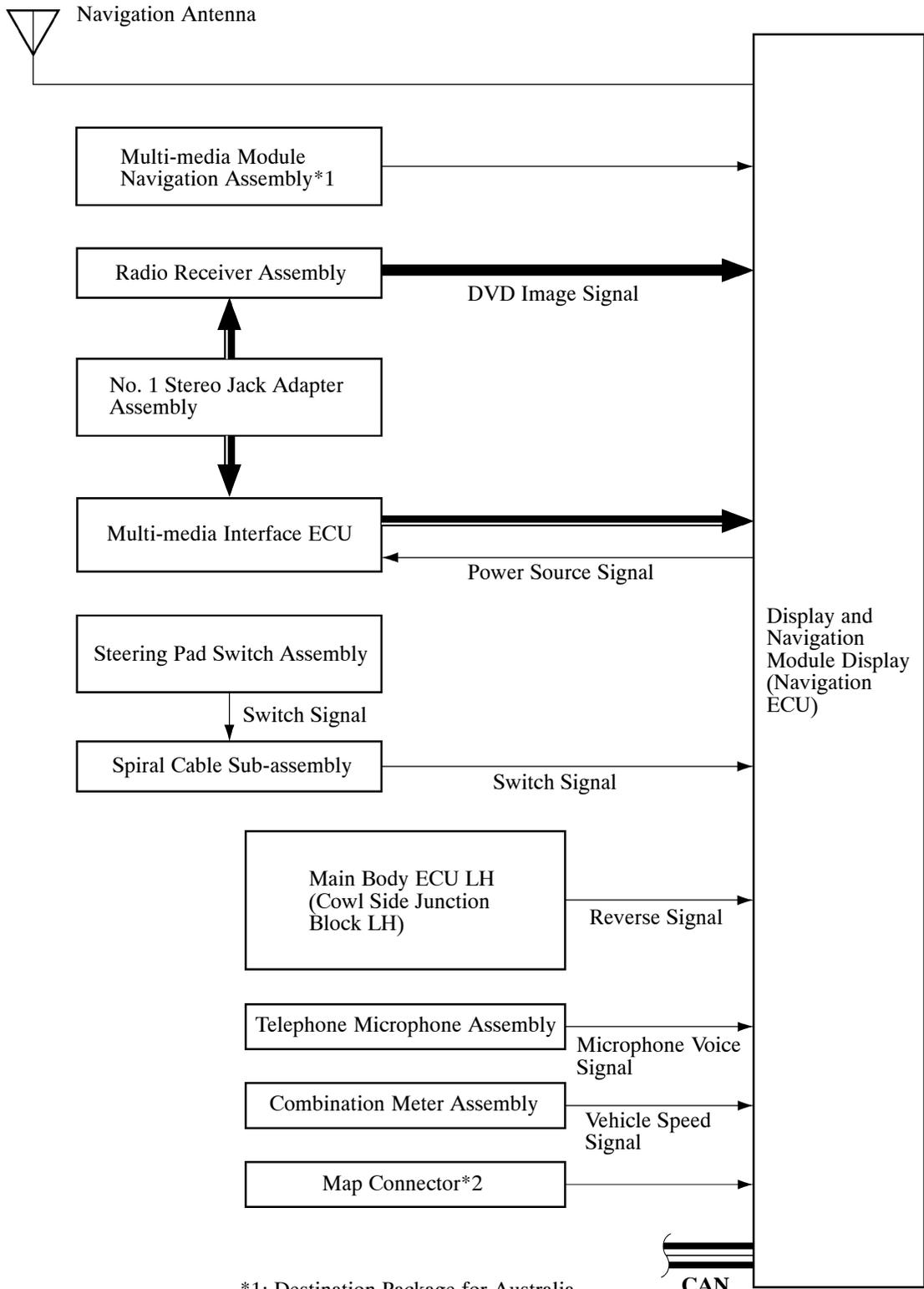


01Z3NF59C

2. Specification

Components		Destination	
		Europe	Australia
Multi Display		7.0-inch wide LCD	
		Pressure Sensitive Touch Panel	
Navigation ECU		AISIN AW	DENSO
Gyro Sensor		Piezoelectric Ceramic Element	
Hard Disk Drive (HDD)		Capacity 40 GB	-
Map Data Media		HDD	DVD
Language Support	Voice Guidance	English, German, French, Italian, Dutch, Spanish, Swedish, Danish, Norwegian, Portuguese, Polish, Russian, Greek, Finnish	English
	Voice Recognition	English, German, French, Italian, Dutch, Spanish, Russian	-

3. System Diagram



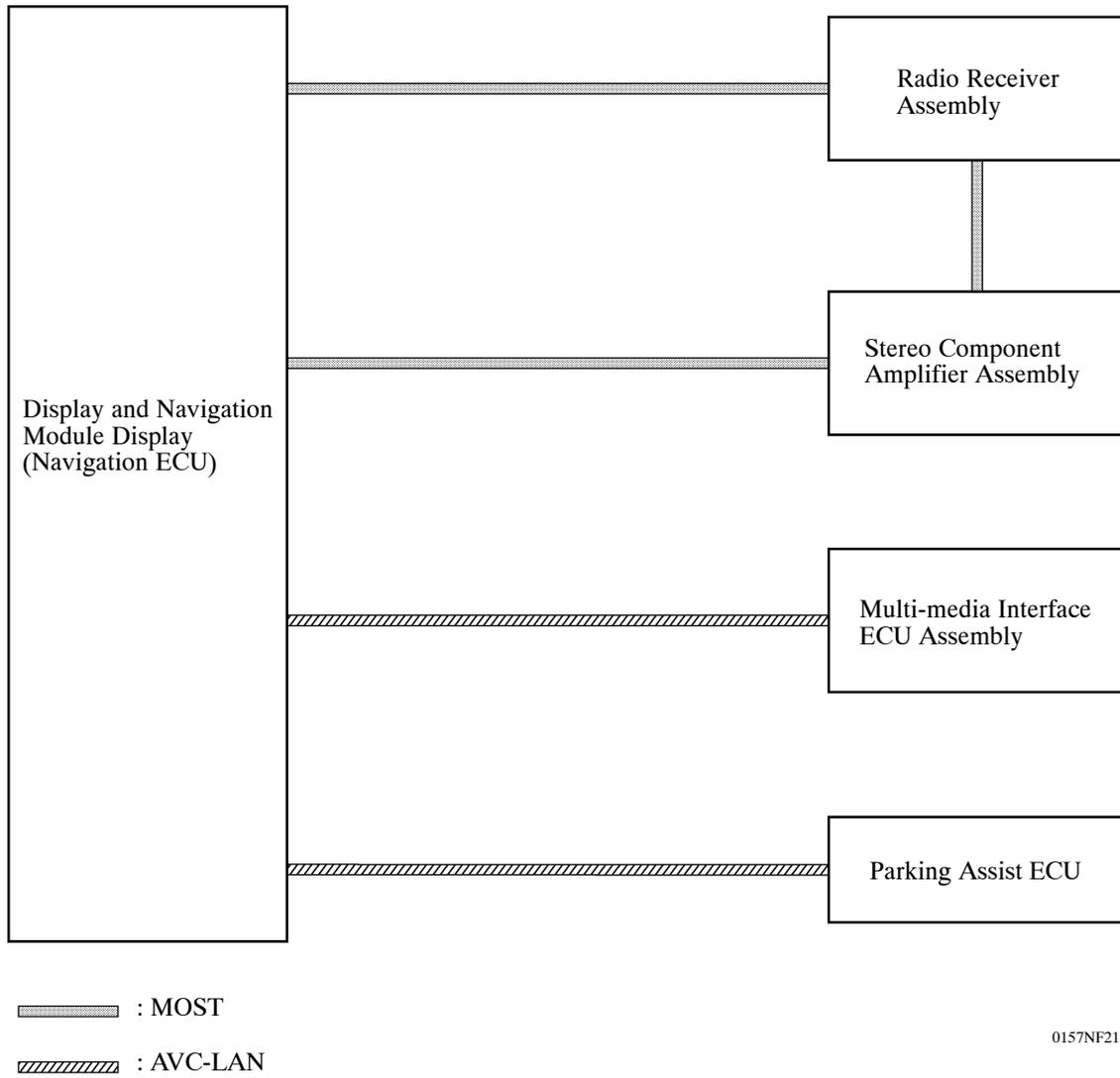
▤▤▤▤▤▤▤▤ : Display Signal (Digital)

▬▬▬▬▬ : Display Signal (Analog)

▬▬▬▬▬ : Sound Signal

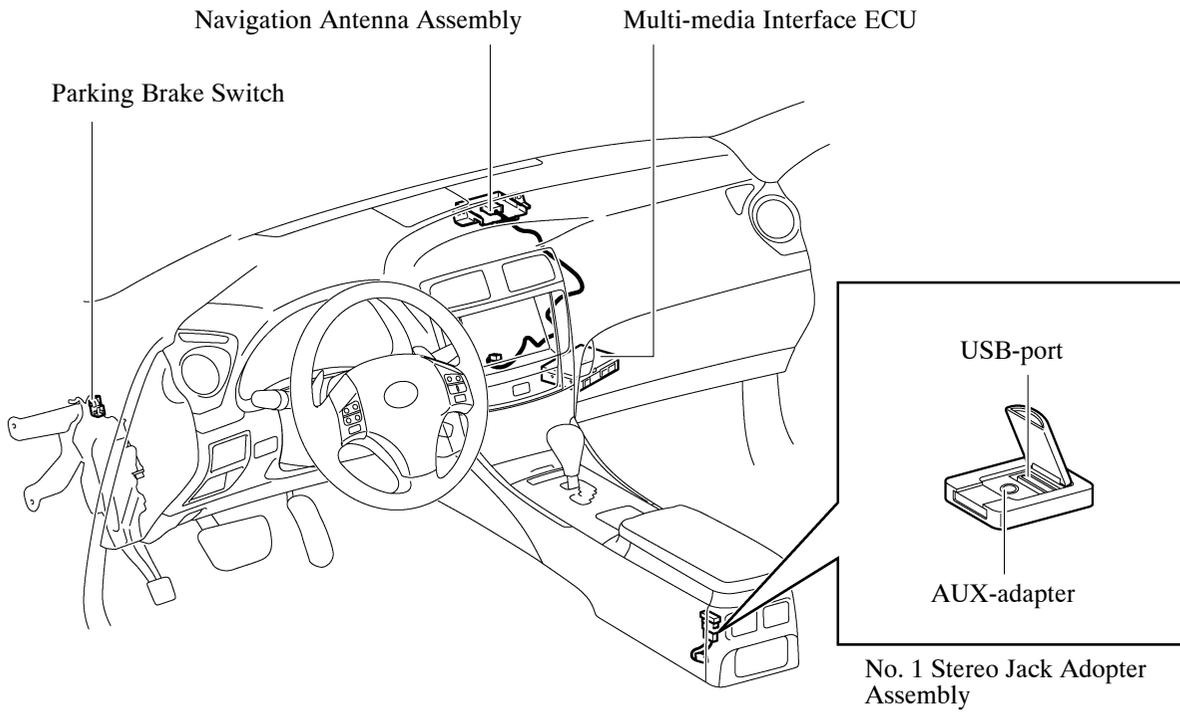
*1: Destination Package for Australia
*2: Models for Europe

► Network Communication Line ◀

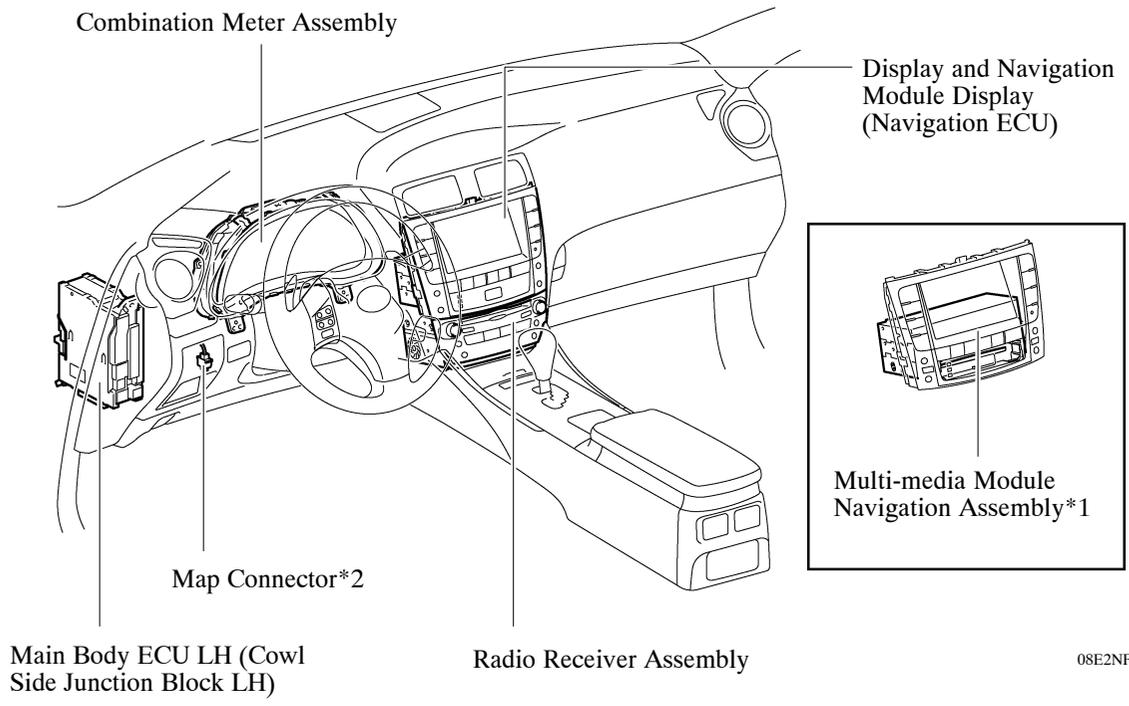


4. Layout of Main Components

LHD Models



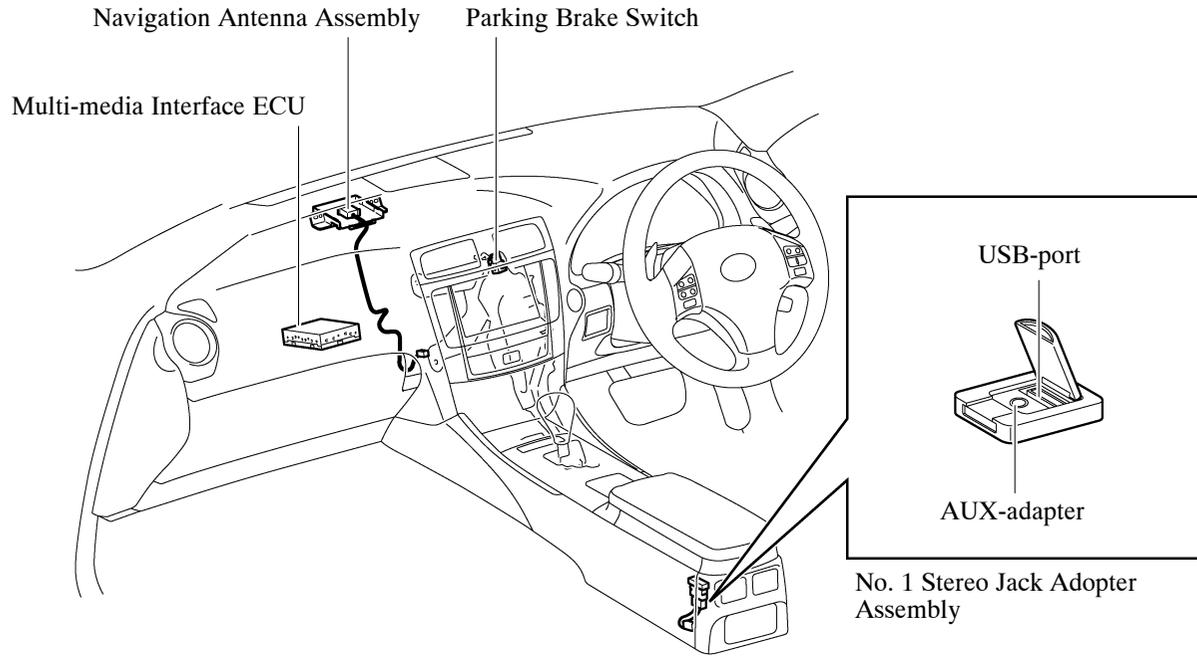
13V0NF32C



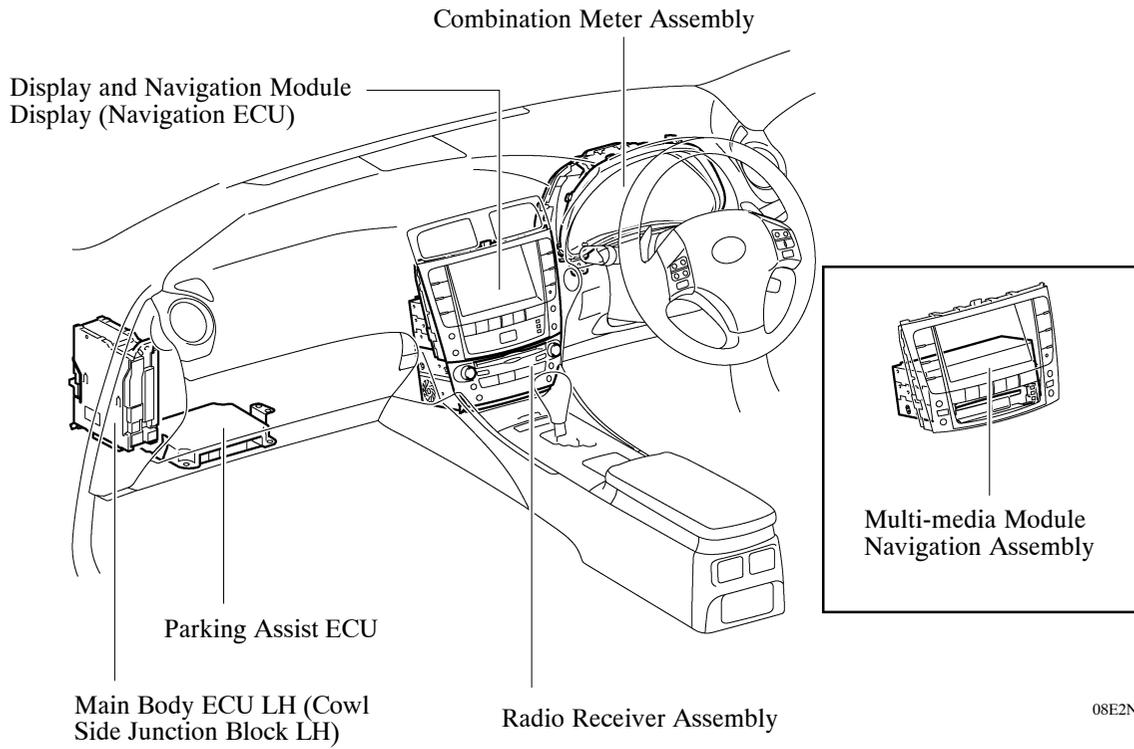
08E2NF12C

*1: Destination Package for Australia
 *2: Models for Europe

RHD Models

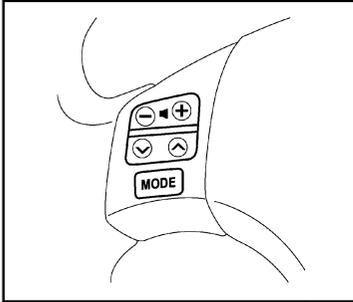


08E2NF34C

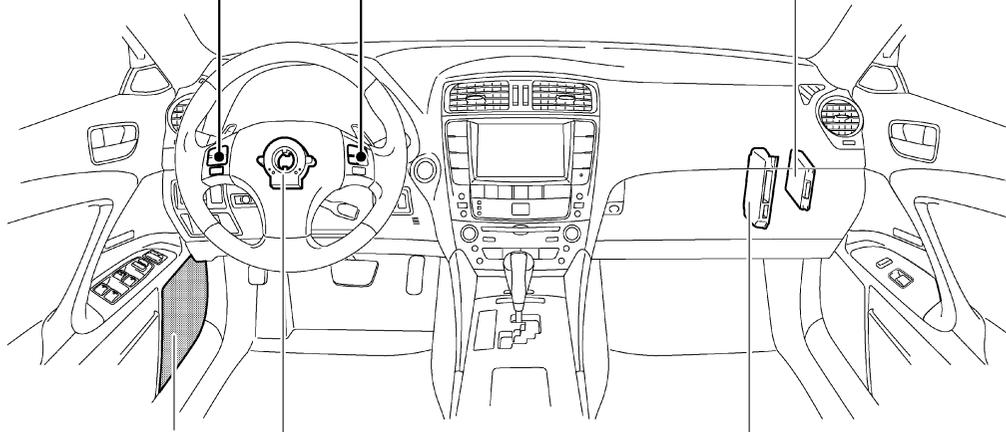
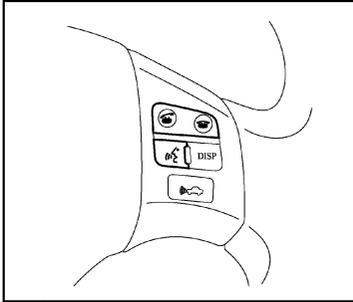


08E2NF13C

Steering Pad Switch Assembly (LH Side)



Steering Pad Switch Assembly (RH Side)



Network Gateway ECU

Front No. 1 Speaker LH

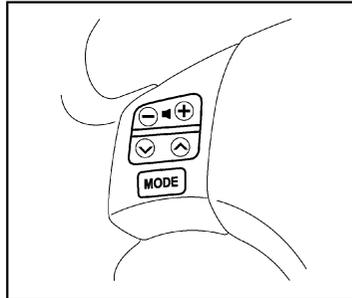
Spiral Cable Sub-assembly

Parking Assist ECU

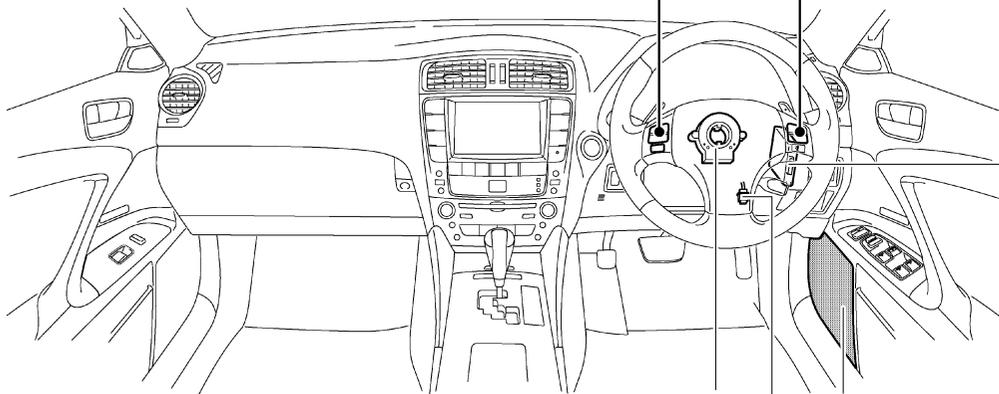
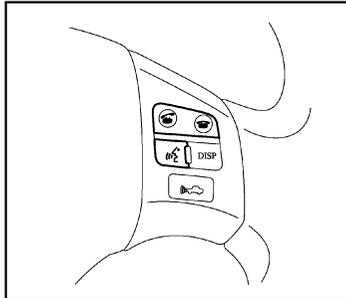
08E2NF14C

LHD Models

Steering Pad Switch Assembly (LH Side)



Steering Pad Switch Assembly (RH Side)



Network Gateway ECU

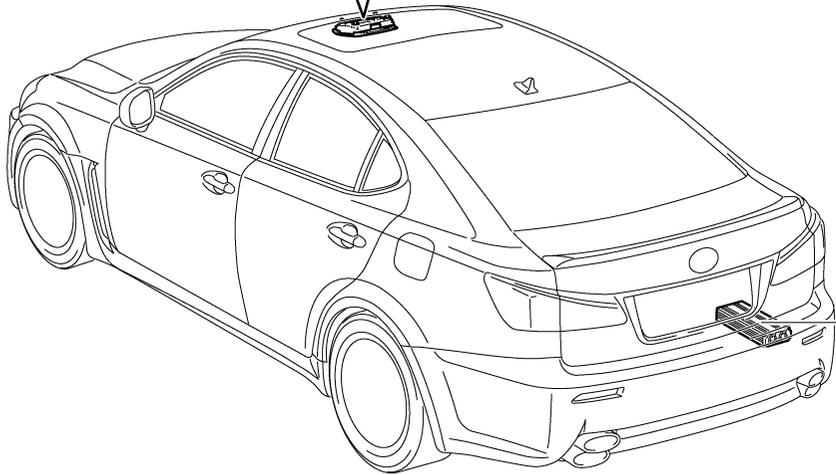
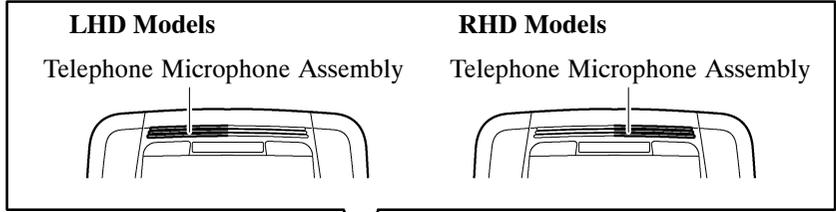
Spiral Cable Sub-assembly

Front No. 1 Speaker RH

Map Connector

RHD Models

08E2NF15C



Stereo Component
Amplifier Assembly

08E2NF33C

5. CONSTRUCTION AND OPERATION

General

The main functions of the navigation with AV system 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 or DVD, 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 • DVD changer operation*1 • Sound Library operation*2 • Bluetooth-compatible portable player operation*2 • USB memory stick operation • iPod operation • Portable audio player (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*2	Operates the navigation, audio, and air conditioning systems based on voice commands.
Parking Assist Monitor System	Displays parking guide lines and a view of the area behind the vehicle that is captured by the television camera mounted on the luggage compartment door when the shift lever is moved to R.
LEXUS Parking Assist-sensor System*3	Detects obstacles and displays information on the multi display to inform the driver.

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	Function	Outline
	Maintenance Information	<p>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 • Tires/TYRES: Replace tires • Battery: Replace battery • Brake pad: Replace brake pads • Wipers: Replace wiper blades • Coolant/LLC: Replace engine coolant • Brake oil: Replace brake 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
	Calendar*4	The calendar screen is displayed using time information from the GPS.
	Calendar with Memo*2	<ul style="list-style-type: none"> • The calendar screen is displayed using time information from the GPS. • It is possible to enter memos for particular dates on the calendar.
	Language Select*2	The language of the screen buttons, pop-up messages and the voice guidance can be changed.
Others	Screen Setting	This enables automatic return to the navigation screen from the audio screen.
	Keyboard Layout	The keyboard layout can be changed.
	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 (Address book) • Areas to avoid • Previous points • Route guidance • Route trace • Telephone setting*2 • Phonebook data • Dialed numbers and received calls • Speed dial • Voice tag data*4 • Bluetooth phone data • Audio setting*2 • Tracks recorded in the hard disk drive*2 • Volume setting*4 • Details setting*4
	Screen Adjustment	The brightness or contrast of the screen can be adjusted to suit the brightness of the surroundings.

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Function	Outline
Diagnosis	This menu contains the following items: <ul style="list-style-type: none"> • Failure Diagnosis <ul style="list-style-type: none"> - System Check - HDD Check*2 - MM Diagnosis Recorder*2 • Function Check/Setting <ul style="list-style-type: none"> - Panel Steering Switch - Touch Switch - Mic & Voice Recognition - Color Bar - GPS & Vehicle Sensors - Vehicle Signal - Sound Library Setting*2 - Hands-free Volume Setting - Camera Settings • Program Update*2

*1: Models with 6-DVD changer

*2: Models for Europe

*3: Models with LEXUS parking assist-sensor system

*4: Destination package for Australia

Navigation Screen

The navigation ECU calculates the present position, direction of travel, determines a route and calculates the driving distance based on the following information sources.

- DVD map data*1
- Map data in the HDD*2
- Global Positioning System (GPS) Satellites
- Built-in Gyro Sensor
- Vehicle Speed Signal
- Reverse Signal
- Radio Data System Traffic Message Channel (RDS-TMC) Signal*2

*1: Destination package for Australia

*2: Models for Europe

- The functions of the navigation screen display are shown below:

	Item	Function
Map Display	Linear Touch Scroll	Enables smooth scrolling by connecting the touch points on the screen.
	Map Color Change	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.
	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.
	Street Name Sign Board Display	Displays the street name on the map.
	Point of Interest Display	Displays selected types of points of interest as marks on the map.
	3D Display*1	Displays a 3-dimensional (3D) view of the map.
	Split-view Display	Displays different modes on a screen that is split into 2 views.
	Compass Mode Screen	Displays the direction of travel and detailed data of the present location.
	On-route Scroll (Route Preview)*2	Scrolls the center of the cursor forward and backward constantly along the route.
	Route Trace	It is possible to store up to the last 200 km (124 miles) of a traveled route and retrace the route on the display.
RDS-TMC Display*1	Displays RDS-TMC icons, arrows and indicators when RDS-TMC service is being received.	

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	Item	Function
Destination Search	Preset Destination Memory Search	Sets a pre-registered point as a destination point while driving.
	Address Search*1	A destination can be set in 2 ways: <ul style="list-style-type: none"> • Information can be input in the order of: street name, town and house number. • Information can be input in the order of: town or postal code, street name and house number.
	Address Search*2	A destination can be set in 2 ways: <ul style="list-style-type: none"> • Information can be input in the order of: city name, street address and house number. • Information can be input in the order of: house number, street address and city name.
	Hybrid Point of Interest Search	Narrows the search by names of the point of interest, category and areas.
	Previous Destination Search	Stores the coordinates, names, and date of up to 100 locations that have been set as destinations in the past.
	Address Book (Memory Point) Search	Sets a destination from the registered Address Book (Memory Point).
	Intersection Search	By specifying 2 streets, the point at which they intersect is set as the destination point.
	Motorway (Highway, Freeway) Entrance or Exit Search	Searches for the destination by the name of the street that connects to a motorway entrance or exit.
	Map Search	A destination can be set by scrolling the cursor on the map.
	Coordinate Search	A destination can be input by entering its coordinates.
	UK Postal Code Search*1	A destination can be input by entering its postal code.
Voice-recognition Search*1	A destination can be set up by voice command input.	
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 recommended, alternative, and shortest routes.
	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	Searches for a route adjacent to the current road.

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	Item	Function
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.
	Rotary Guidance	Provides guidance with a special voice phrase in a rotary (traffic circle).
	Next Turn Guidance	Provides guidance about the distance to the next turn and indicates the direction of the turn using an arrow.
	Motorway (Highway, Freeway) Mode Display	Displays the distance to the next junction and exit.
	Motorway (Highway, Freeway) 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	Displays a turn list on the right side of the 2-screen display.
	Arrow Display*1	Displays the direction of the next turn and the distance to the turn on the right side of the 2-screen display.
	Distance Display Destination	Displays the distance from the present location to the destination.
	Estimated Arrival Time Display	Displays estimated arrival time.
	Off-route Arrow Display	Displays the route ahead on the route guidance line in case of being off the route during the guidance.
Others	Voice Recognition*1	Recognizes pre-programmed system commands spoken to operate the navigation system.
	Help	Explains what operation can be performed when a “?” on the display is touched.
	Map Coverage Information Display	Displays the map area that is recorded in the HDD*1 or on the DVD*2

*1: Models for Europe

*2: Destination package for Australia

Information Screen

The functions of the menu screen display are listed below:

Item		Function
Hands-free Phone	Enter a Bluetooth Phone	A maximum of 4 Bluetooth-compatible cellular telephones can be registered. In addition, connection with automatically registered Bluetooth-compatible cellular phone is available.
	Call and Receive on the Bluetooth Phone	<ul style="list-style-type: none"> • The following 6 methods are available to make a call: <ul style="list-style-type: none"> - By Dial - By Phonebook - By Speed Dial - By Call History - By Voice Recognition - By Point Of Interest Search (POI) Call • When a call is received, the incoming call screen will be displayed. The following operations are available: <ul style="list-style-type: none"> - Talk on the phone - Adjust the volume - Hang up the phone - Mute voice - Transfer the call
Information Check	Display of Information Acquired from the Operator Service	Acquired information can be displayed and manually updated.
Calendar	Calendar with Memo*1	<ul style="list-style-type: none"> • The current date is highlighted in yellow. • It is possible to enter memos for particular dates on the calendar.
	Calendar*2	The current date is highlighted in yellow.
Map Data*2	Map Coverage Information Display	Displays the map area that is recorded on the DVD.

*1: Models for Europe

*2: Destination package for Australia

Setup Screen

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

	Item	Function
Setup	General Setting	<ul style="list-style-type: none"> • Language can be selected.*1 • Voice recognition language can be selected.*1 • The beep sound can be turned off. • Selecting automatic screen change from audio to map after audio controls are operated. • Keyboard layout can be changed. • Distance unit can be changed.*1 • Registered information (personal data) can be cleared.
	Clock Setting	<ul style="list-style-type: none"> • The time zone can be set.*2 • Daylight savings time automatic change can be turned on/off. • The system can be set to automatically adjust the time using GPS time information.*2
	Voice Setting	<ul style="list-style-type: none"> • The voice guidance volume can be adjusted or switched off. • Voice guidance during route guidance can be set. • Voice guidance while using the audio system can be set. • Voice recognition talkback can be set.
	Navigation Setting	<p>The Navigation Settings can be used to:</p> <ul style="list-style-type: none"> • Set up Home.*3 • Set up Preset Destinations.*3 • Set up the Address book.*3 • Set up Areas to Avoid.*3 • Delete previous destinations.*3 • Set detailed navigation settings such as: <ul style="list-style-type: none"> - Average cruising speed - Displayed POI icon categories - Display of 3D landmarks*1 - Buttons displayed on the map screen when “OFF” is selected - Manual adjustment of the current vehicle position mark - Display of pop-up messages - Display of traffic notification*1
	Phone Setting	<ul style="list-style-type: none"> • Voice and ring volume adjustment. • Initial registration and settings for a Bluetooth phone. • Setting the phonebook. • Information on a registered Bluetooth phone can be displayed and the settings can be changed. • Detailed phone settings can be set.
	Audio Setting	<ul style="list-style-type: none"> • A Bluetooth audio device can be registered. • A registered Bluetooth compatible portable player can be selected. • Recording settings for music CDs can be changed.*3

(Continued)

Item		Function
Setup	Vehicle Setting	<ul style="list-style-type: none"> • Settings can be changed for the following maintenance items: <ul style="list-style-type: none"> - Engine oil - Oil filter - Rotation - Tires/TYRES - Battery - Brake pad - Wipers - Coolant/LLC - Brake oil - Trans. Fluid/AT fluid - Service - Air filter - Personal • LEXUS Parking Assist-sensor system adjustment.*4
	Traffic*1	<p>The RDS-TMC Settings can be used to:</p> <ul style="list-style-type: none"> • Set voice guidance. • Set show traffic information and select icons. • Set auto avoid traffic reroute search. • Set automatic tuning of traffic station.

*1: Models for Europe

*2: Destination package for Australia

*3: Models with sound library

*4: Models with LEXUS parking assist-sensor system

Diagnosis

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