■CONSTRUCTION AND OPERATION

1. General

The main functions of the navigation system are listed below:

Function	Outline
Navigation Screen Display	• Enlargement/reduction, rotation and movement of map. • Indication of current position and direction of travel. • Correction of current position. • Setting change and indication of route. • Voice guidance. There are many additional functions.
Audio System	Displays the following operations: • Radio Operation
Telephone Operation Screen Display	When a Bluetooth-compatible cellular telephone is registered on the navigation receiver assembly, the driver can make and receive calls or talk hands-free on the cellular telephone by operating the switches on the screen.
Maintenance Information	Can be used to inform the driver of inspection or replacement timing of the following items based on the calendar function and vehicle speed signal. **Engine Oil:** Replace engine oil **Oil Filter:** Replace engine oil filter **Rotation:** Rotate tires **Tires:** Replace tires **Battery:** Replace battery **Brake Pad:** Replace brake linings **Wipers:** Replace wiper blades **LLC:** Replace engine coolant **Brake Oil:** Replace brake fluid **ATF:** Replace ATF **Service:** Scheduled maintenance **Air Filter:** Replace air filter **Personal:** New information items can be created separately from provided ones
Calendar with Memo	It is possible to enter memos for particular dates on the calendar.
Help Screen	The help screen can show the command list and operation guide.
Screen Adjustment	The brightness or contrast of the screen can be adjusted to suit the brightness of surroundings.
Screen Setting	The following screen settings are available: **Automatic transition:** Enables automatic return to the navigation screen from the audio screen. **Switch color:** Color of touch-screen button can be selected.

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Function	Outline
Delete Personal Data	The following personal data can be deleted or returned to their default settings: • Maintenance conditions • Maintenance information “off” setting • Memory points • Areas to avoid • Previous points • Route trace • User selection settings • Phone book data • Dialed numbers and received calls • Speed dial • Bluetooth phone data • Security code
Beep Setting	Beep sound off
Select Language	The language of the touch-screen buttons, pop-up messages and the voice guidance can be changed.
Diagnosis Screen Display	• Service check menu • Display check • Navigation check • Bluetooth TEL check

2. Navigation Screen Display

- Based on the map data on the DVD, signals from GPS satellites, signals from the built-in gyro sensor, and signals from the vehicle's speed sensor, the vehicle's present position, direction of travel, and driven distance are calculated and displayed on the navigation display.
- 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.
	On-route Scroll	Scrolls the center of the cursor forward and backward along the route.
	Heading Up	Displays the map so that the direction of the route progression heads up the screen during route guidance.
	Map Color Change	Depending on the position of the headlight switch, the screen changes to day mode or night mode.
	Front Wide	Displays a map in the direction of travel of the vehicle in an enlarged form. (Heading up only)
	Stepless Scale Display	Changes the scale of the map from the basic 13 steps to an even finer display.
	Direct Scale Change	Directly selects and displays the map scale.
	Multi-step Scale Display	Changes and displays the map scale in 13 stages.
	Split-view Display	Displays different modes on a screen that is split into two views.
	Points-of-interest Display	Displays selected types of marks on the map.
	Taillight-interlocked Map Color Change	Changes the display color of the map screen when the taillights are turned ON.
	Road Number Sign Board Display	Displays the road number on the map.
	Compass Mode Screen	Displays the direction of travel and detailed data of the present location.
	Map Coverage Info. Screen	Displays the map area that is recorded on the DVD.
	Street Name Indication on Scrolled Map	Displays the street name and the city name even when the map screen is being scrolled.
	Building Tenant Information (for Foot Print Map Areas)	Displays information on the tenants in the building.
	Arrival Time	Displays the expected time of arrival at the destination.
	Route Trace	Displays the route on the map.
Destination Search	Last Destination Memory	Stores 20 locations of coordinates, names and times that have been set as destinations in the past.
	Hybrid Points-of-interest Search	Narrows the search by names of the points-of-interest, category, and areas.
	Points-of-interest Pinpoint Display	Pinpoints and displays positions of points-of-interest.
	House Number Search	Searches for a house number.
	Special Memory Point	Sets a pre-registered point as a destination point while driving.
	Nearest Point-of-interest Search List Display	Searches nearest points-of-interest and displays a list.
	Intersection Search	By specifying two streets, the point at which they intersect is set as the destination point.
	Emergency Search	Performs a specific search for hospitals, police stations and car dealers.
	Motorway Entrance/ Exit Search	Searches for the destination by the name of the street that connects to a Motorway entrance/exit.
	Coordinate search	User can input destination by its coordinates.
	Telephone Number Search	Searches for a facility by its telephone number.
	POI, Brand Icon Indication	Displays icons for points-of-interest.

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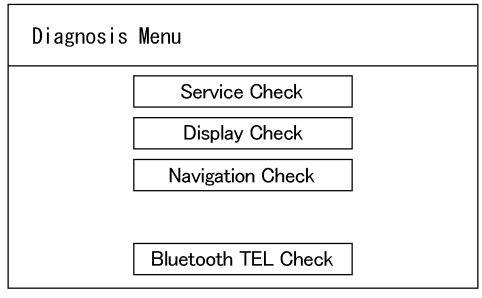
Item		Function
Route Search	Multiple Destination Setting	Sets multiple destinations. It can also rearrange the sequence of destinations can also be rearranged.
	Route Search	Searches for multiple routes.
	Search Condition Designation	Searches for the recommended, shortest, and other routes.
	Regulated Road Consideration	Performs search while considering regulated roads.
	Avoidance Area	Avoids a designated area when searching for a route.
	Motorway Mode Screen	Displays information on facilities in the vicinity of the Motorway exits and entrances.
Guidance	Destination Direction Arrow Display	Uses arrows along the road to display the direction of the destination during route guidance.
	Off-route Arrow Display	Uses arrows to display the direction of the destination during off-route driving.
	Rotary Guidance	Guidance that renders the entry and exit into a rotary as a single branching point.
	Right or Left Turn Guidance	Voice guidance to instruct the direction of travel to be taken.
	Motorway Direction of Travel Guidance	Voice guidance to instruct the direction of travel to take on a Motorway.
	Distance Display Destination	Displays the distance from the present location to the destination.
	Motorway Branch Type Specimen Guidance	Type specimen for guidance to a Motorway branch.
	Intersection Zoom-in Display	Zoom-in display when approaching an intersection.
	Turn List Display	Displays a turn list on the right side of the two-screen display.
	Calendar	Anniversary or appointment dates can be input and displayed.
	Function Help	Explains the functions of the switches on the main screens, such as the destination and menu.

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3. Diagnosis Screen Display

The navigation system is equipped with a self-diagnosis function and can display the diagnosis menus shown on the right.
The diagnosis menu contains the following four items:

a) Service Check Menu
b) Display Check
c) Navigation Check
d) Bluetooth TEL Check



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For details on the procedure required to enter the diagnosis menu screen, refer to the Fortuner/Hilux SW4 Repair Manual.