4. Bluetooth Hands Free System

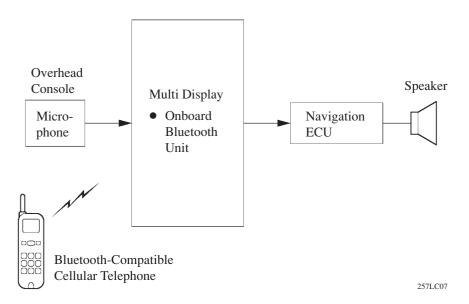
General

Bluetooth is a short-distance, high-speed wireless data communication system that uses the 2.4 GHz frequency band prescribed by the Bluetooth SIG (Special Interest Group).

Through the use of the Bluetooth communication protocol, various computer and communication devices can exchange wireless audio or data communication without relying on any cables.

- On the new Land Cruiser, an onboard Bluetooth unit has been integrated in the multi display.
- This enables hands free communication with bluetooth-compatible cellular telephone.

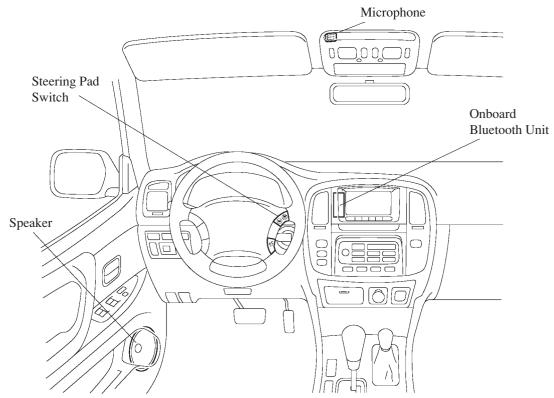
▶ System Diagram **◄**



▶ Specification **◄**

Item	Specifications
Communication Distance	Approximate 10 meter radius
Number of devices connected simultaneously	1 device (Registration, max 4 phones)
Use frequency range	2.45 GHz (ISM band range)

Layout of Main Components



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▶ Function of Main Components **◄**

Item	Outline
Onboard Bluetooth Unit	The onboard Bluetooth unit consists of an antenna and a module. The
	module contains an interface to connect the onboard Bluetooth unit
	to the multi display. Another function of the module is to process the
	data that is being transmitted or received by the antenna.
Steering Pad Switch	Contains "on-hook" and "off-hook" switches for operating the
	telephone.
Microphone	These items are used by an occupant in the vehicle to operate the
	hands-free function while talking with another person on the cellular
Speaker	telephone.

Operation Procedure

- When making a phone call, select a person to call while keeping bluetooth-compatible cellular telephone in a bag or a shirt pocket. The number is transmitted by the multi display or the steering pad switch to converse with another person on the cellular telephone circuit via bluetooth communication.
- Unlike in the past, it is not necessary to connect the cellular telephone with the onboard Bluetooth unit. Also, because Bluetooth communication connects automatically, no complex setups are required to use it each time. However, a Bluetooth-compatible cellular telephone must be registered initially with the onboard device.



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Procedures for Registering, Selecting, and Deleting Bluetooth-Compatible Cellular Telephones

1) General

- To use the hands-free function, a Bluetooth-compatible cellular telephone must be registered with the onboard device.
- Once a Bluetooth-compatible cellular telephone has been registered, it connects automatically so that it can be used subsequently for making hands-free telephone calls. A maximum of four Bluetooth-compatible cellular telephones can be registered with an onboard Bluetooth unit.

2) Procedure for Registering Cellular Telephones

• On the "Settings" screen of the multi display, press the "Entry" button.



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 A screen appears, prompting you to enter the Bluetooth pass key on a cellular telephone. Enter the pass key number, which appears on the screen, on a Bluetooth-compatible cellular telephone.



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 A connection will start once the Bluetooth pass key number has been entered on a Bluetooth-compatible cellular telephone.
When a connection is completed normally, the device name of the Bluetooth-compatible cellular telephone and the Bluetooth unit address will appear on the screen. This completes the registration process.

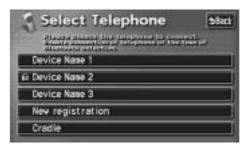


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3) Procedure for Switching Registered Cellular Telephones

• Up to four Bluetooth-compatible cellular telephones can be registered on the onboard unit. However, only Bluetooth-compatible cellular telephone can connect automatically. To switch between multiple Bluetooth-compatible telephones that have been registered on the onboard unit, select the device name of the Bluetooth-compatible cellular telephone on the "Select Telephone" screen. After completing the foregoing selection, if you wish to change the connection to another Bluetooth-compatible cellular telephone, perform a device selection again.

(The Bluetooth-compatible cellular telephone that is registered last becomes activated as default device.)



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4) Procedure for Deleting Registered Cellular Telephones

 Perform the following procedure to delete the registration data of Bluetooth-compatible cellular telephones from the onboard Bluetooth unit.

On the "Delete Telephone" screen, select the device name that you wish to delete, and press the "OK" button.

The registered data has been deleted from the registration list.



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