
Bluetooth SYSTEM

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Outline

- The Bluetooth system can be used for wireless audio from Bluetooth-enabled mobile/portable audio devices having a common profile with the Bluetooth unit.

Note

- The profile indicates the wireless communication standard. If the profile of Bluetooth-enabled devices differs from the Bluetooth unit, wireless communication is not possible.

Function

- The communication between the Bluetooth unit and the audio unit is sent and received via CAN signals.
- The communication between the Bluetooth unit and Bluetooth-enabled mobile phones is performed by radio waves in the frequency range of 2.4 GHz. In addition, the range in which communication is possible is approx. 10 m (33 ft).
- The Bluetooth system has the following functions:

Bluetooth audio function

- Music files programmed to Bluetooth-enabled devices can be sent to the Bluetooth unit by radio wave and output via the audio unit. In addition, Bluetooth-enabled devices can be operated using the audio panel and commander switch. Corresponding functions differ according to the profile.

Hands-free telephone (HF/TEL) function

- Operations such as making and receiving calls can be done without directly operating the mobile phone. Corresponding functions differ according to the profile.

Voice recognition function

- The Bluetooth unit is preset with voice commands, and voice produced by facing the microphone for the voice recognition is matched to the preset voice commands which activates the mode set to the voice command.
- The voice commands and functions are as follows.

Note

- For details, refer to the owner's manual.

Voice command	Operation
Phonebook	Imports phonebook data programmed in the mobile phone to the Bluetooth unit. (Registers, edits, lists or deletes a voice tag)
Dial	Operates the dial-up connection mode.
Mute	Mutes the microphone during a call.
Setup	Operates each set-up mode of the Bluetooth system.
Emergency	Connects to emergency services.

TTG (Text to Grammer) function

- This function matches the voice of the user to the phone book text data. Calls can be made just by downloading a Bluetooth-enabled mobile phone book without having to re-register using the voice recognition mode.

TTS (Text to Speech) function

- Messages such as SMS (Short Message Service), e-mail, and MMS (Multimedia Messaging Service), and telephone book text data are converted into audio and output.

Speed dial function (Favorites registration function)

- The speed dial function can be used to register frequently called contacts to the speed dial enabling phone calls to be made with little operation. Phone numbers and names registered beforehand are displayed on the speed dial screen to enable immediate phone calling. A maximum of 8 phone numbers can be registered.

Note

- For the phone number registration method, refer to the owner's manual.

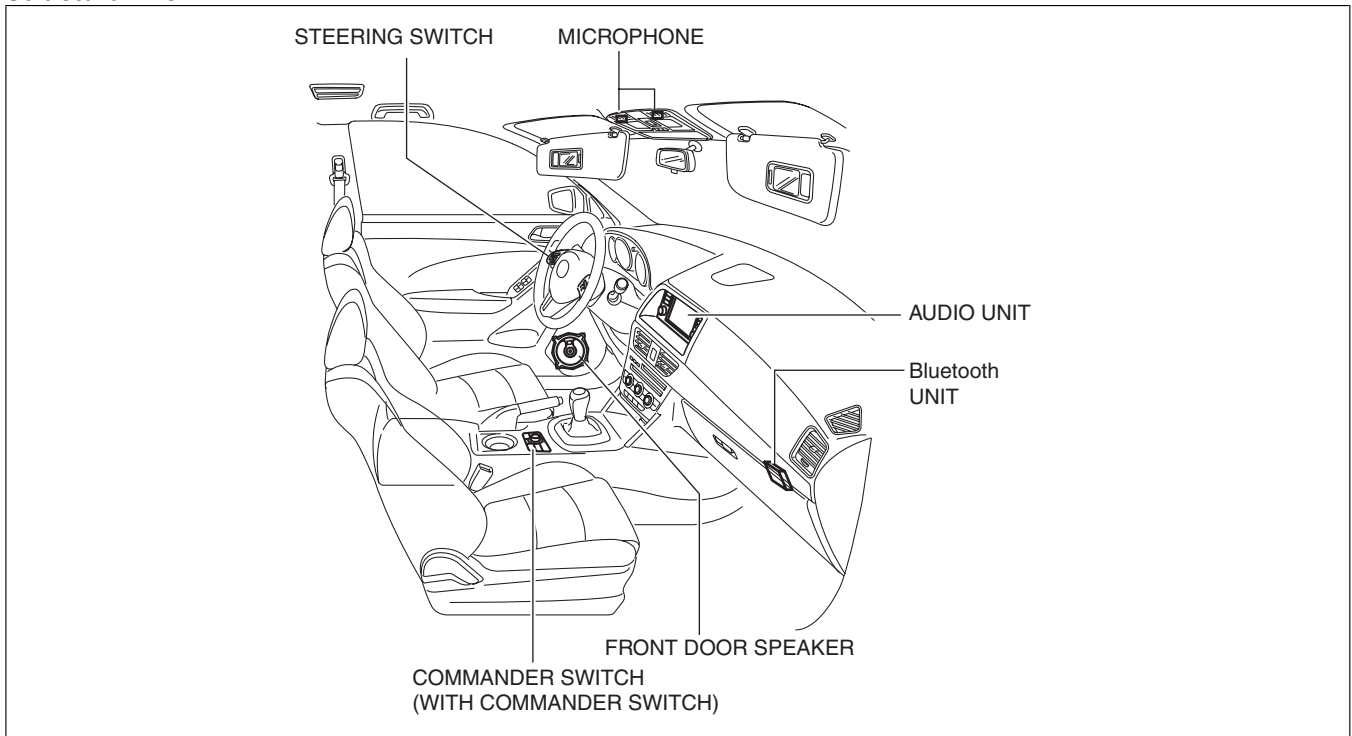
On-board diagnostic function

- This function performs on-board diagnostics to detect malfunction locations.
- For details on the on-board diagnostic function, refer to the Diagnostic System [Bluetooth System].

Diagnostic Assist Function

- Using the audio unit, this function can verify the Bluetooth unit connection status and 7-digit software version using the audio unit display.
- For details on the diagnostic assist function, refer to the Diagnostic Assist System [Audio System].

Structural View



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Block Diagram Without Bose®



The diagram illustrates the electrical wiring for the vehicle's audio system. Key components include:

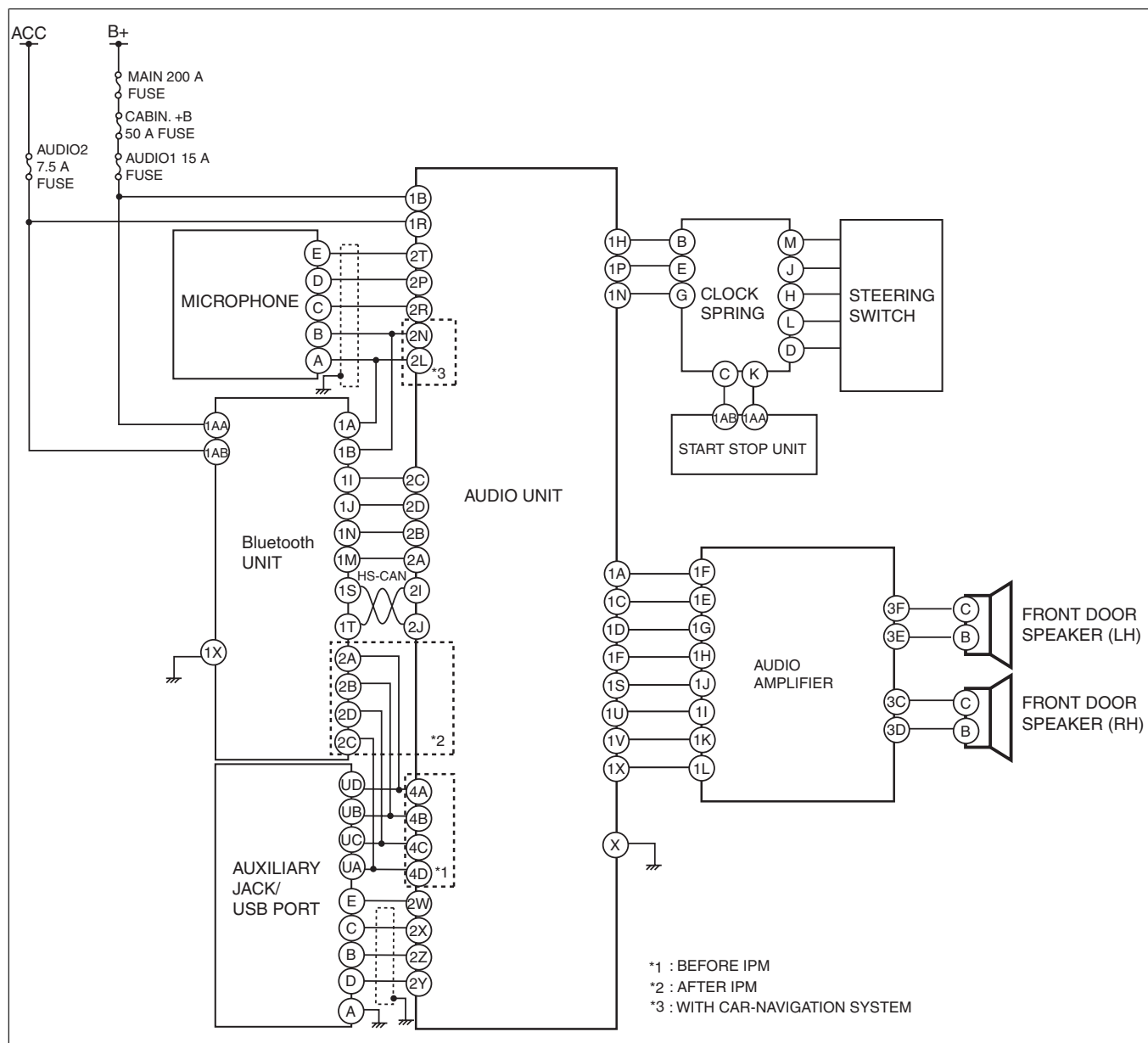
- Power Source:** A DC-DC converter connected to a main power line through a fuse.
- Fuses:** AUDIO1 15 A FUSE and AUDIO2 7.5 A FUSE are shown protecting different branches of the circuit.
- Audio Unit:** The central component with multiple input and output terminals labeled 1A through 2Y.
- Microphone:** Connected to terminals 2T, 2P, 2R, 2N, and 2L.
- Bluetooth Unit:** Connected to terminals 1A, 1B, 1I, 1J, 1N, 1M, 1S, 1T, and 1X.
- Auxiliary Jack/USB Port:** Connected to terminals UD, UB, UC, UA, E, C, B, D, and A.
- Speakers:** FRONT DOOR SPEAKER (LH) and FRONT DOOR SPEAKER (RH) connected to terminals 1A, 1C, 1D, and 1F.
- Steering Switch:** Controls various functions via terminals M, J, H, L, D, C, K, 1AB, and 1AA.
- Start Stop Unit:** Connected to terminals 1AB and 1AA.
- Commander Switch:** Controls the ACC line and is connected to terminals 3H, 3G, 3F, 3E, 3D, 3B, 3A, O, P, 3J, A, and L.
- Instrument Cluster:** Connected to terminal L.

Notes at the bottom of the diagram specify conditions for certain terminals:

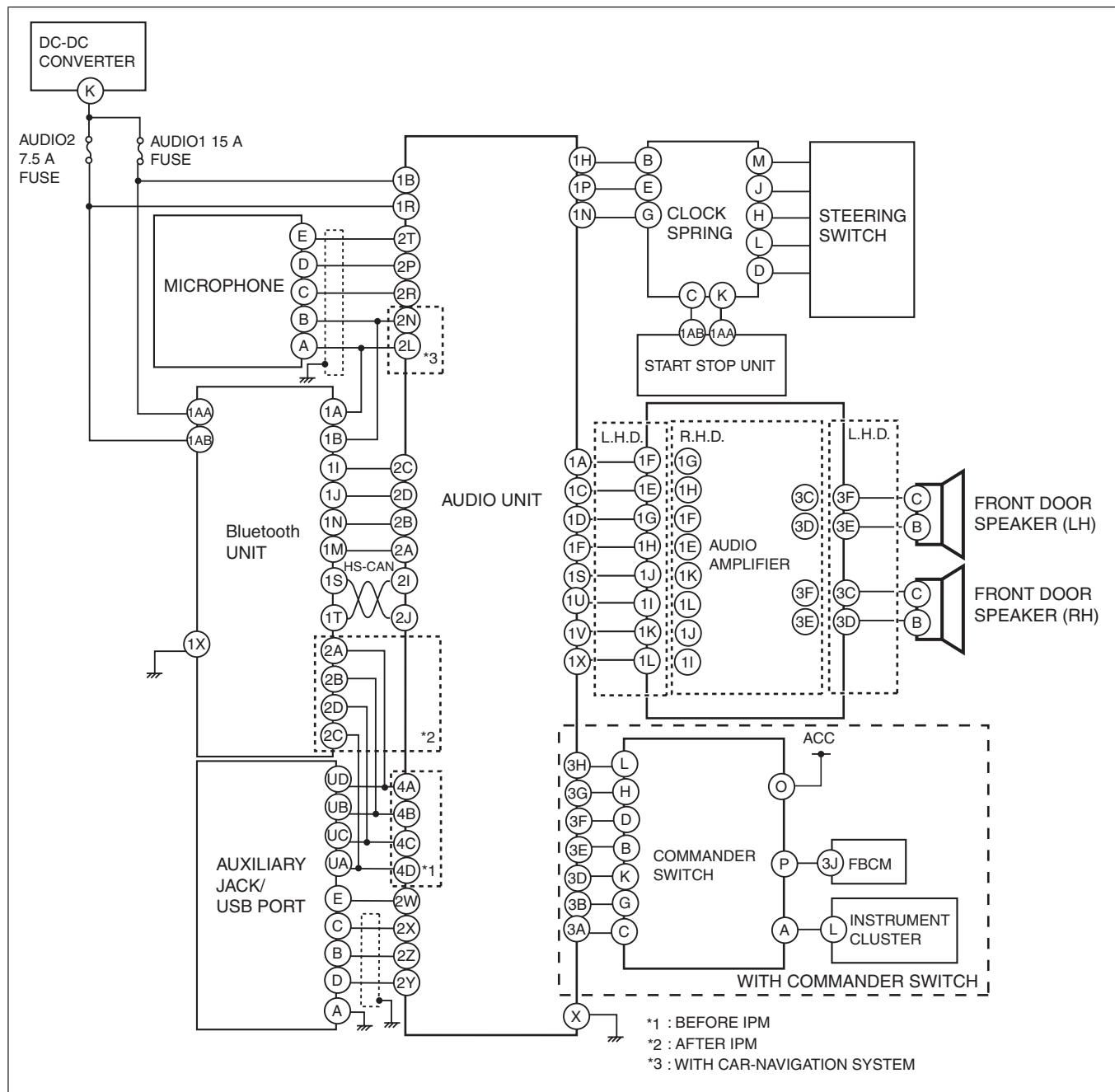
- *1 : BEFORE IPM
- *2 : AFTER IPM
- *3 : WITH CAR-NAVIGATION SYSTEM

With Bose®

Without i-stop system



With i-stop system



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Operation

- When the ignition is switched to ACC or ON (engine off or on), the Bluetooth unit begins communication with a Bluetooth-enabled mobile phone/portable audio device.

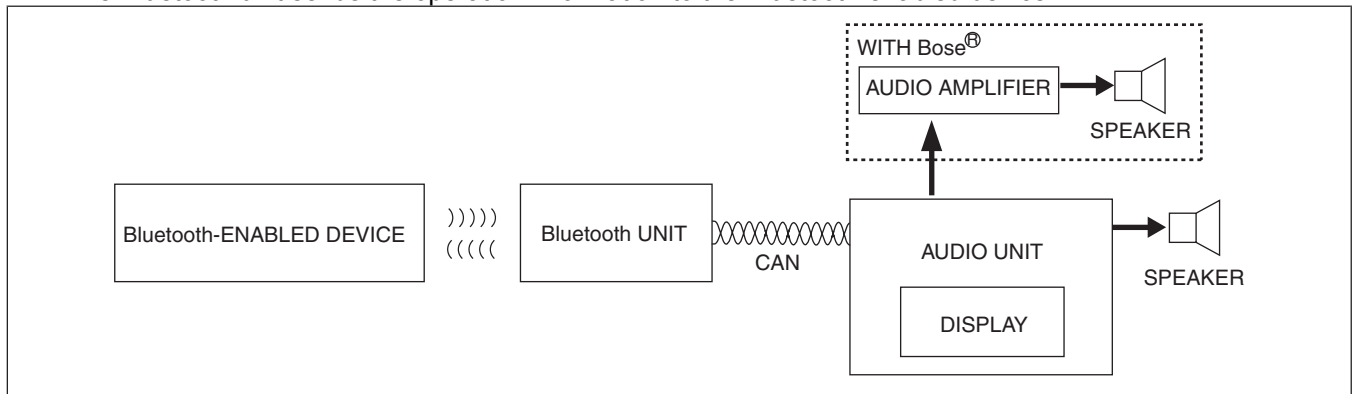
Note

- It is necessary to register a Bluetooth-enabled device to the Bluetooth unit. For the registration method, refer to the owner's manual.
- When the audio unit, commander switch, or steering switch is operated, the Bluetooth unit sends Bluetooth-enabled mobile phone/portable audio device information to the audio unit.

Bluetooth audio operation

- The Bluetooth unit sends information received from the Bluetooth-enabled device to the audio unit.
- The audio unit outputs music data to the speakers (with Bose®)/audio amplifier (with Bose®) and displays video information in the audio unit display.
- When the audio panel and commander switch is operated, the audio unit sends the operation information to the Bluetooth unit.

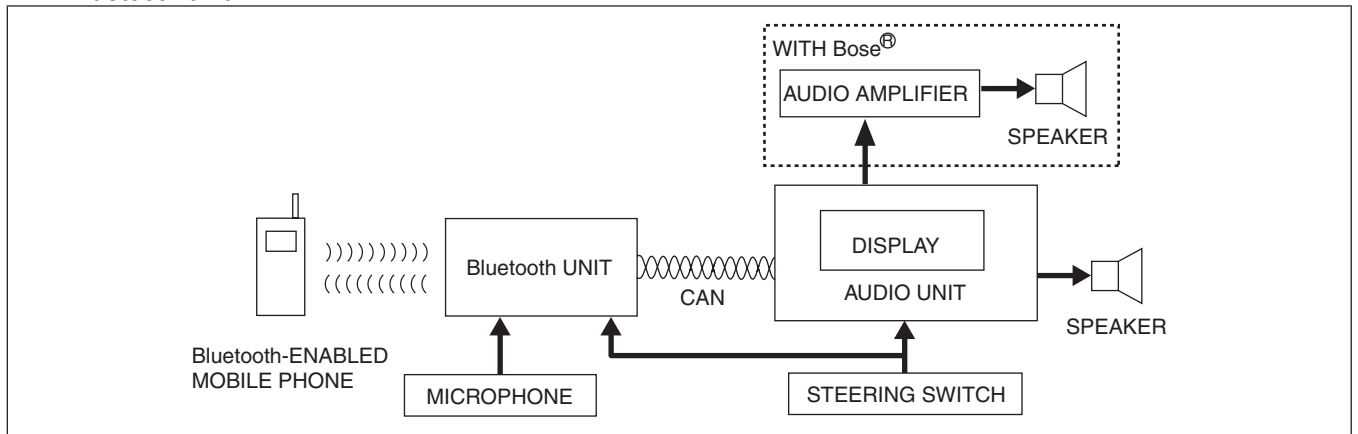
4. The Bluetooth unit sends the operation information to the Bluetooth-enabled device.



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Hands-free telephone (HF/TEL) operation

1. When a call is received by a registered and connected cell phone, the Bluetooth unit sends incoming call information to the audio unit.
2. When the steering switch Pick up button is pressed, the line is opened.
3. The audio received by the mobile phone is output from the speakers.
4. Voice spoken into the voice recognition microphone is sent to the Bluetooth-enabled mobile phone by the Bluetooth unit.



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Voice recognition operation

1. When the Talk switch is operated, the voice recognition function operates. The user's voice spoken into the microphone for the voice recognition activates the voice command mode if it matches a Bluetooth unit voice command.