ENTERTAINMENT SYSTEM [WITH CENTER DISPLAY]

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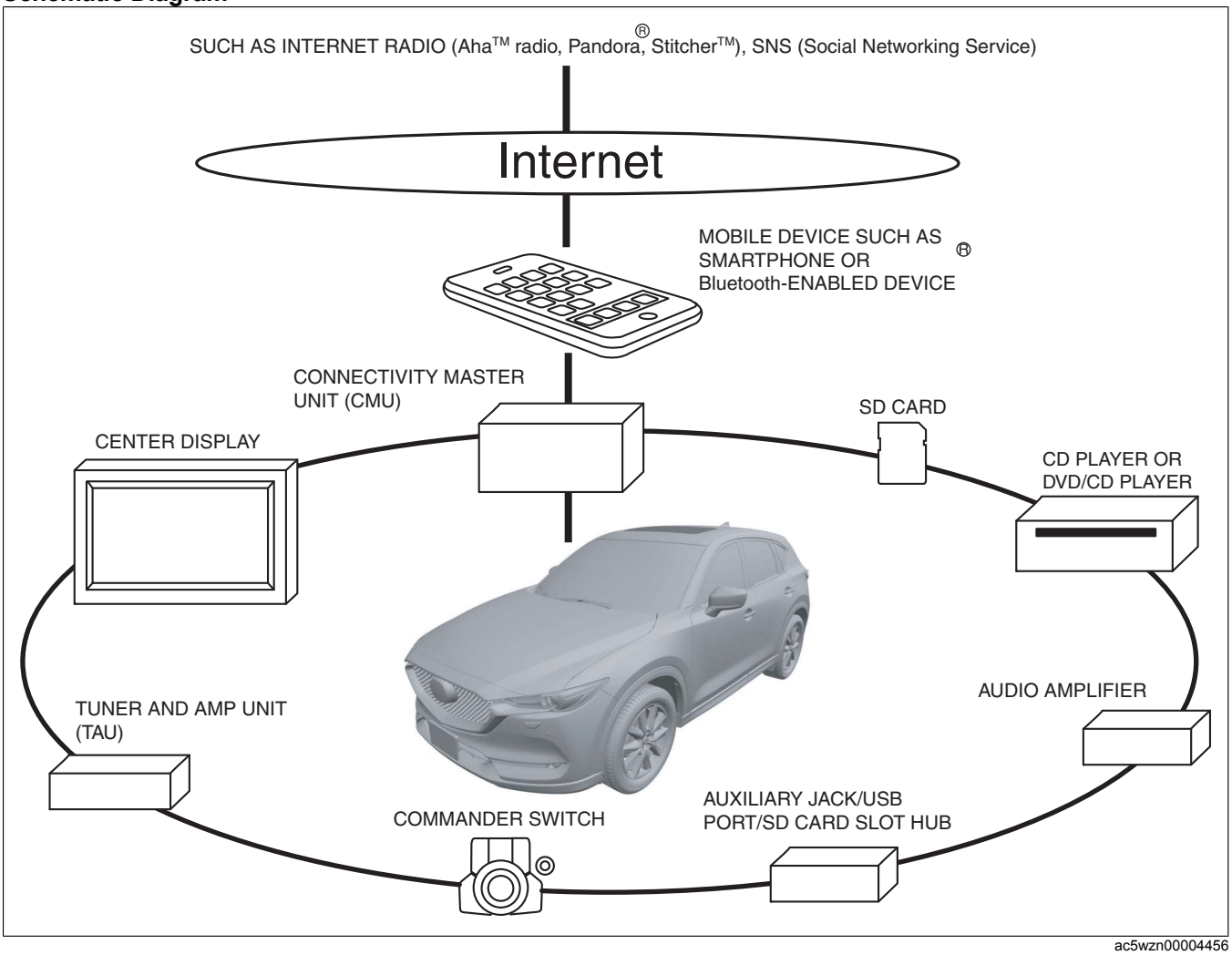
Note
- iPod is a registered trademark of Apple Inc.

Outline
- In addition to the conventional audio and navigation functions, communication tools such as Internet radio, SMS (Short Message Service), SNS (Social Networking Service), and Bluetooth® functions can be operated as one function of the vehicle by connecting a mobile device such as a customer's Smartphone or tablet terminal.

Schematic Diagram



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Reference List Table

Item	Content/function	Reference
Operation signal reception	The entertainment system receives operation signals sent from the center display, commander switch, or the voice recognition function to operate each function.	**Operation** (See Operation signal reception.)
Audio function	• Music media listening such as radio, CD, and iPod is available. • DVD viewing is available.	**Function** (See Audio function.) **Operation** (See Audio function.)
Communication function	SMS (Short Message Service) SNS (Social Networking Service) Bluetooth® Hands-free functions are available.	**Function** (See Communication function.) **Operation** (See Communication function.)

Navigation function	Provides guidance and information to destination.	**Function** (See Navigation function.) **Operation** (See Navigation function.)
Setting function	Changes the vehicle settings such as for the center display screen, sound quality/volume.	**Function** (See Setting function.) **Operation** (See Setting function.)
Application function	The fuel consumption monitor, maintenance information, and warning guidance information can be verified.	**Function** (See Application function.) **Operation** (See Application function.)
Structural diagram	—	(See Structural View.)
System diagram	—	(See System diagram.)

Function
Audio function
AM/FM radio
- AM and FM radio broadcast can be listened to.
- A condenser has been adopted for noise reduction.

RDS (radio data system)
- The RDS can be listened to. The RDS displays the name of the radio station being tuned and track information (such as track name and artist name) being played by the ratio station in the center display. In addition, the RDS provides the following two types of traffic information services.
  Traffic information voice
  — If traffic information broadcast begins while the RDS is being listened to, it automatically switches to the traffic information voice.
  Traffic information data (RDS-TMC)
  — Traffic information, such as the location and length of traffic jams, is displayed above the navigation screen in the center display.

Note
- Music information or album art may not be displayed in the center display depending on the radio reception status.

Aha™ radio*1/Pandora® *2/Sticher™ radio*3
- By downloading an application to a mobile device such as a Smartphone and pairing with the connectivity master unit (CMU), Internet broadcasts (Aha™ radio/Pandora®Stitcher™ radio) can be listened to.

Note
- Aha™ radio is an application which personalizes various Internet content such as Internet radio and podcasts, and allows easy access. Some Facebook and Twitter functions are available for use. Local restaurants and coffee shops can be searched using the Location Based Services, and by obtaining traffic information in real time, the user's travel is supported. The service content provided by Aha™ differs depending on the country in which the user resides. For detailed information regarding Aha™ radio, go to http://www.aharadio.com/.
- Pandora® is non-fee, personalized Internet radio. Pandora® is not simply an application for playing user requests, rather it is used to create a personalized station by matching the user's likes using key words such as artist and song name input by the user, and providing the music.
- Stitcher™ radio is an application which streams Internet radio and podcasts on demand. Desired content can be registered to the user's likes, and by giving a Thumbs-up or down, recommended content is automatically selected. For detailed information regarding Stitcher™ radio, go to http://stitcher.com/.

*1 : Aha™, the Aha™ logo, and the Aha™ are trademarks or registered trademarks of Harman International Industries, Inc., used with permission.

*2 : Pandora®, the Pandora® logo, and the Pandora® are trademarks or registered trademarks of Pandora Media, Inc., used with permission.

*3 : Stitcher™, the Stitcher™ logo, and the Stitcher™ are trademarks or registered trademarks of Stitcher, Inc., used with permission.

DAB radio (Digital Audio Broadcasting) (With DAB radio)

- DAB radio broadcasts can be listened to.
- When Radio Text in the DAB setting is turned on, music information (song name/artist name) is displayed in the center display.

Note

- DAB radio is a digital broadcast system for radio. A high sound quality radio source is received because the frequency area boundaries change automatically. Because the radio station are selected automatically, manual selection of radio stations is unnecessary even if the broadcast area changes by the vehicle travel.

AUX/USB audio

- By connecting an on-market portable audio/USB device/iPod to the auxiliary jack/USB port/SD card slot hub, audio from the external device (MP3/WMA (Windows Media Audio)/ACC (Advanced Audio Coding)/OGG) can be listened to.

Bluetooth® audio

- By pairing a Bluetooth®-enabled device with the CMU, audio from the Bluetooth® device can be listened to.

CD playback

- CDs and CD-R (MP3/WMA (Windows Media Audio)/AAC (Advanced Audio Coding)) can be listened to.

DVD playback (With DVD/CD player)

- Playback of images and audio is possible by inserting a commercially-available DVD into the DVD/CD player.

Gracenote

- The CMU supports Gracenote. Provides music information such as song titles and artist names based on your personal data and algorithms. Gracenote can perform updates by connecting a USB, in which update information has been saved, to the auxiliary jack/USB port/SD card slot hub.

Note

- Music recognition technology and related data are provided by Gracenote®. Gracenote is the industry standard for music recognition technology and related content delivery. For detailed information, refer to the Website (www.gracenote.com).

Centerpoint® *4

- Centerpoint® is a virtual surround sound function for vehicles. The 5.1-channel surround signal converted using an independently optimized algorithm delivers three-dimensional, well-balanced surround acoustics from the 12 speakers equipped on the vehicle to passengers. Centerpoint® can be set to ON/OFF.

*4 : Centerpoint® is a registered trademark of Bose Corporation.

Communication function

SMS (Short Message Service)

- By pairing a mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone to the CMU, and SMS received by these mobile devices can be viewed on the center display.

Bluetooth® (Hands-Free) function

- Answering and receiving telephone calls can be performed without having to directly connect a Bluetooth®-enabled mobile device such as a mobile phone or Smartphone.

Navigation function

Map display, route guidance

- Calculates routes to the destination set by the user and provides guidance using maps and audio.

Turn-by-turn (TBT)

- Direction heading and distance to branch points are displayed in the active driving display.

Setting function

Bluetooth® pairing

- Pairing of a Bluetooth®-enabled device can be performed.

Note

- For the Bluetooth® pairing set up method, refer to the [Bluetooth® PAIRING PROCEDURE] in the workshop manual.

Clock setting

- The following items can be set using the clock setting.

Item	Content
Adjust Time	Displays the currently set time. When + is selected, the time/minutes move forward, and when - is selected, the time/minutes move back. AM/PM selection is only possible during 12-hour clock time display.
GPS Sync	Synchronizes to the GPS time. **Note** • When GPS sync is selected, “Adjust Time” cannot be selected.
Time Format	Changes the display between 12 and 24-hour clock time.
Time Zone Select	Selects the time zone.

System setting

- The following items can be set using the system setting.

Item	Content
Tool Tips	The function for displaying supplemental explanations of functions is switched on/off in conjunction with the highlighting of the commander switch operations.
Language	The language can be changed.
Temp	Switches temperature unit between F°/C°*5
Distance	The distance unit can be switched between miles/km*6.
Music Database Update	Gracenote is updated.
Factory Reset	Settings other than sound are reset to the factory settings.
Agreements and Disclaimers	Agreement and disclaimer items can be verified.

*5 : When the temperature unit is changed using Temp, the displayed unit on the climate control unit (dial type) also changes simultaneously.

*6 : When the distance unit is changed using Distance, the displayed unit in the instrument cluster also changes simultaneously.

Display setting

- The following items can be set using the display setting.

Item	Content
Turn Display Off	Turns off the center display screen.
Turn Display Off and Show Clock	Turns off the center display screen and displays the time.
Mode	Switches the display between daytime mode/nighttime mode. When AUTO is selected, the mode switches automatically between daytime/nighttime mode depending on the headlight illumination condition.
Brightness	Adjusts the display brightness.
Contrast	Adjusts the display contrast.
Reset	Resets the display to the factory settings.

Sound quality settings

- The following settings are available for the sound quality.

Item	Content
Bass (Bass adjustment)	+ Side: Increased bass - Side: Decreased bass
Treble (Treble adjustment)	+ Side: Increased treble - Side: Decreased treble
Fade (Front/rear volume adjustment)	Front side: Front speaker volume decrease Rear side: Rear speaker volume decrease
Balance (Left/right volume adjustment)	Left side: Increase left side speaker volume Right side: Right side speaker volume increase
ALC*7 (Auto volume adjustment)	OFF/Level 1/Level 2/Level 3/Level 4/Level 5/Level 6/Level 7
Centerpoint*8 (Automatic surround level adjustment)	ON/OFF
AudioPilot*8 (Automatic volume adjustment)	ON/OFF
Beep (Audio operation sound)	ON/OFF

*7 : Without Bose®
*8 : With Bose®

Volume setting
- The volume can be adjusted by operating the volume dial on the command switch or the volume button on the steering switch.

Personalization feature setting
- The following personalization settings for the system can be changed using the center display. For details, refer to the each system personalization feature.

System name		Reference
Distance Recognition Support System (DRSS)		(See i-ACTIVSENSE PERSONALIZATION.)
Smart Brake Support (SBS) System		
Smart city brake support (SCBS)		
Blind spot monitoring (BSM) system		
Lane departure warning system (LDWS)		
Lane-keep assist system		
Adaptive LED headlight system		
Driver Attention Alert System		
Adaptive Front Lighting System (AFS)		
High beam control (HBC) system		
Traffic sign recognition system (TSR)		
Auto Wiper System		(See WIPER/WASHER PERSONALIZATION.)
Door Locks Systems	Power door lock system	(See SECURITY AND LOCKS PERSONALIZATION.)
	Advanced keyless entry system	
	Keyless entry system	
Lighting systems	Room light control system	(See LIGHTING SYSTEM PERSONALIZATION.)
	Lights-on reminder warning alarm	
	Coming home light	
	Leaving home light	
	Running Lights	
	Auto light system	
	Turn Light System	
	Ambient Lighting	
Turn and Hazard Indicator Alarm		(See INSTRUMENTATION/DRIVER INFO. PERSONALIZATION.)
Lights-on Reminder Warning Alarm		

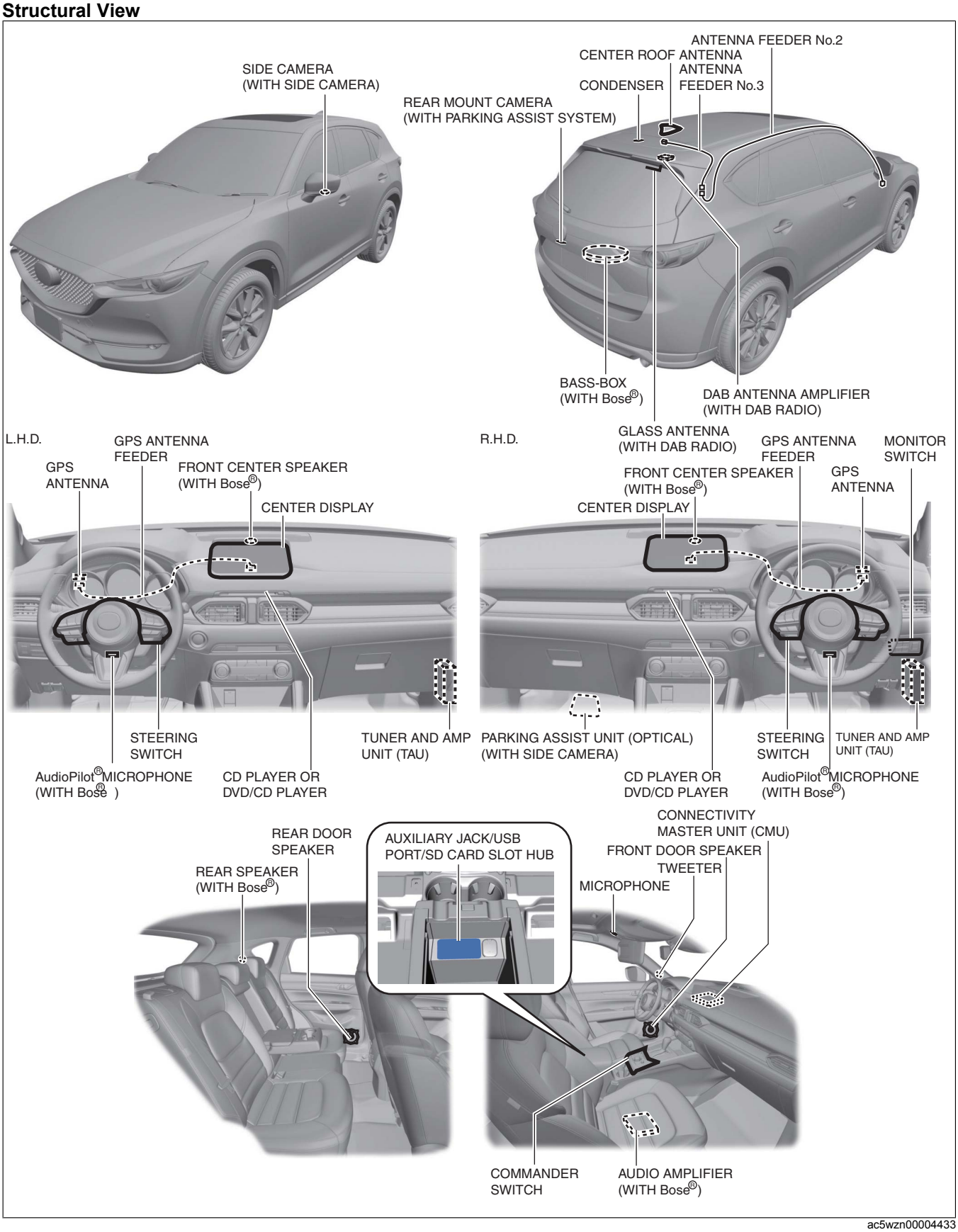
Application function

Fuel economy monitor
- The fuel consumption display displays the following information in the center display. For details, refer to the fuel consumption display of the [CENTER DISPLAY]. (See CENTER DISPLAY [WITH CENTER DISPLAY].)
  - — Fuel consumption

Maintenance monitor
- The maintenance monitor displays the following information in the center display. For details, refer to the [MAINTENANCE MONITOR]. (See MAINTENANCE MONITOR [WITH CENTER DISPLAY].)
  - — Scheduled maintenance
  - — Tire Rotation
  - — Oil Change

Warning guidance
- Currently occurring warnings can be verified. For details, refer to the warnings of the [CENTER DISPLAY]. (See CENTER DISPLAY [WITH CENTER DISPLAY].)

Structural View



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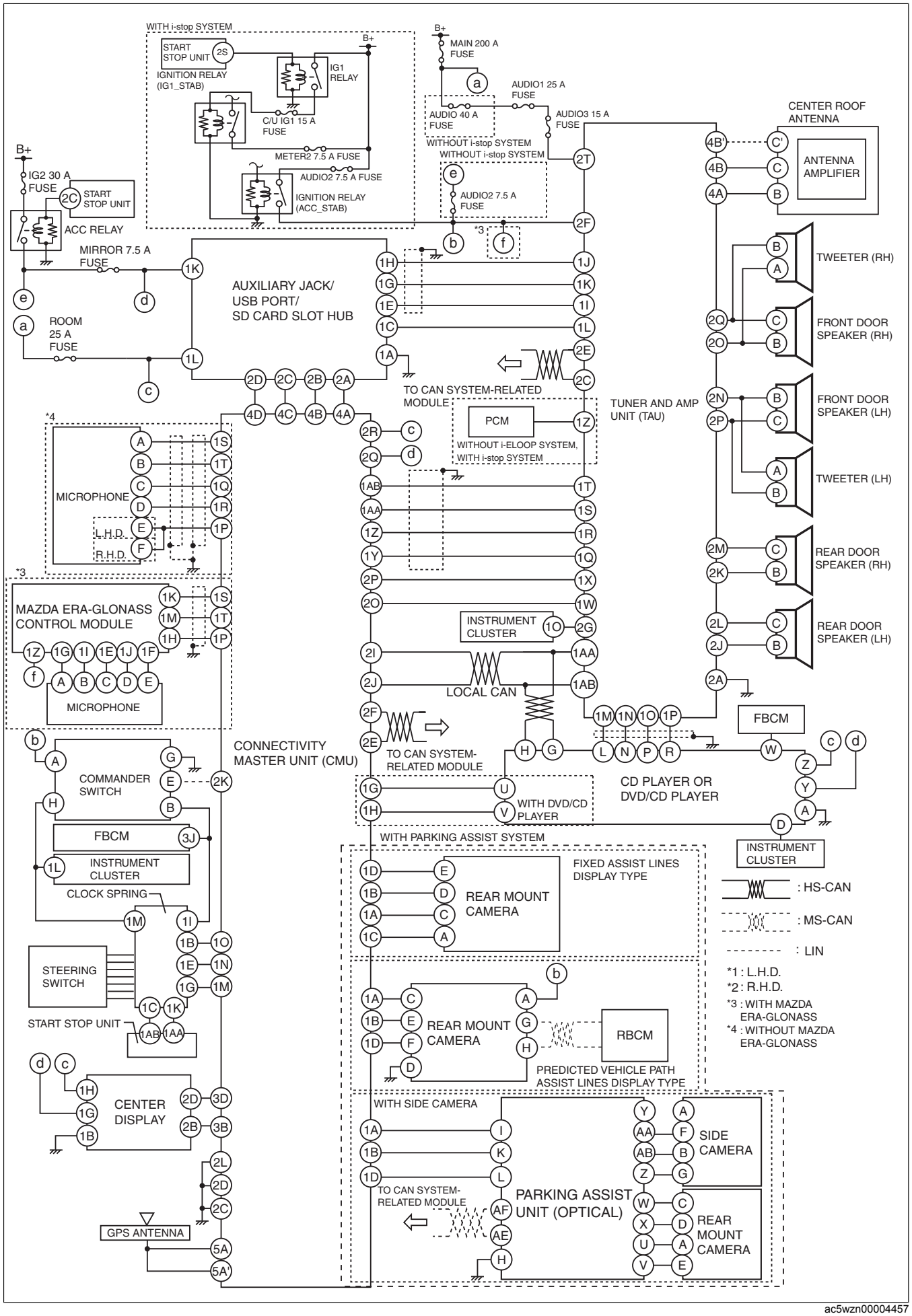
System diagram

Without Bose®



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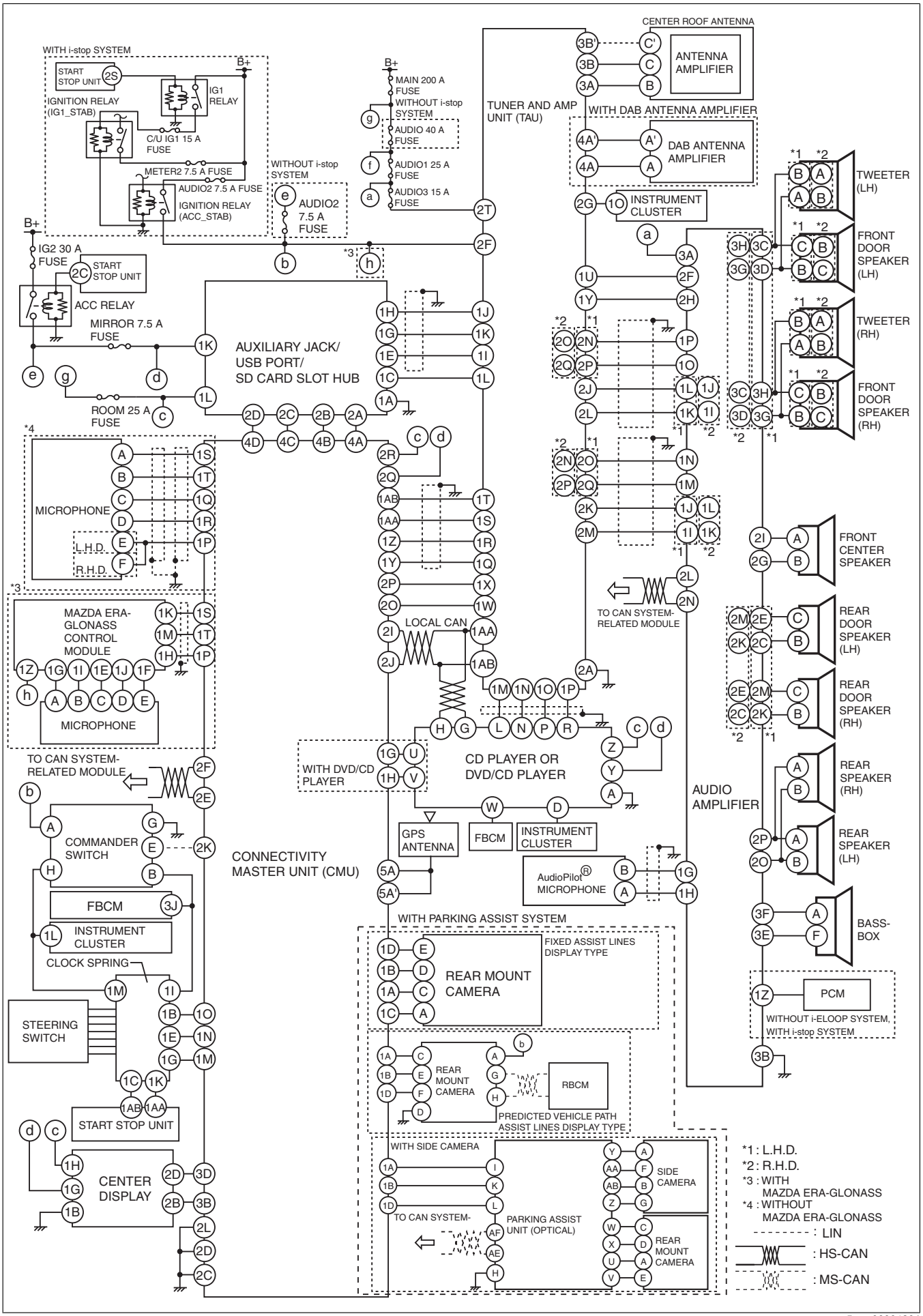
With Bose®



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Operation
Operation signal reception
- Each function of the entertainment system operates if any of the operations in the following table is performed.

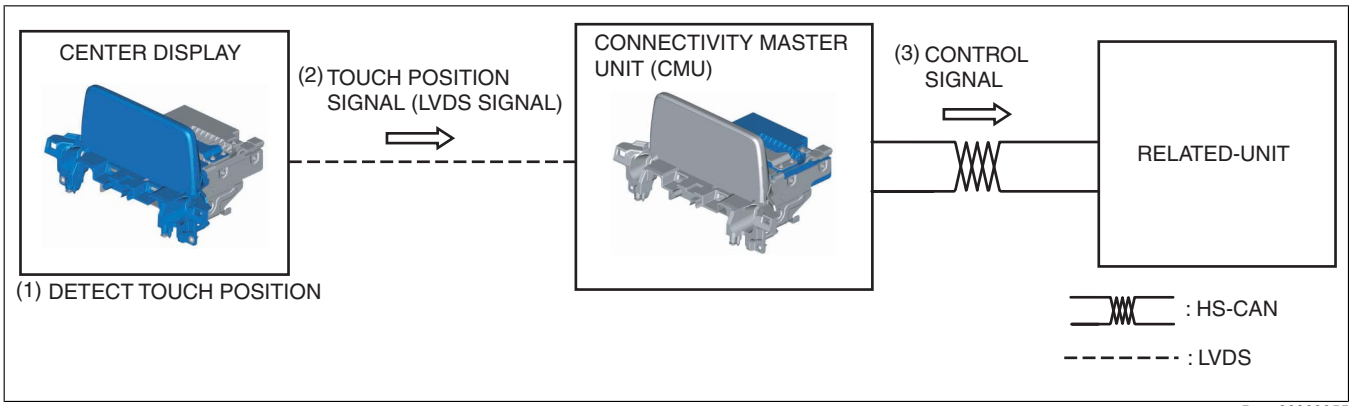
× : Operates
— : Does not operate

Function		Center display operation (touch position signal)	Commander switch operation	Voice recognition function operation (steering switch operation and audio signal (voice command))
Audio function	AM/FM radio	×	×	×
	DAB radio	×	×	×
	Aha™ radio/Pandora®/Stitcher™ radio	×	×	×
	AUX/USB audio	×	×	×
	Bluetooth® audio	×	×	×
	CD playback	×	×	×
	DVD/CD playback	×	×	×
	Centerpoint® *9	—	—	—
Communication function	SMS (Short Message Service)	×	×	×
	Bluetooth® (Hands-Free) function	×	×	×
Navigation function	Map display, route guidance	×	×	×
	Turn-by-turn (TBT)*10	—	—	—
Setting function	Bluetooth® pairing	×	×	—
	System setting	×	×	—
	Screen setting	×	×	—
	Sound setting	×	×	—
	Clock setting	×	×	—
	Personalization feature setting	×	×	—
	Active driving display setting	×	×	—
Application function	Fuel economy monitor	×	×	—
	Maintenance monitor	×	×	—
	Warning guidance	×	×	—

*9 : If the Centerpoint setting is on, it operates automatically even if the user does not perform any operations. The Centerpoint on/off setting can be changed by operating the center display and commander switch.
*10 : If the turn-by-turn (TBT) setting is on, it operates automatically even if the user does not perform any operations. The turn-by-turn (TBT) on/off setting can be changed by the operation of the center display and commander switch.

Operation signal reception from center display
1. When the center display is operated, the center display detects (1) the touch position.
2. The center display sends (2) a touch position signal (LVDS*11 signal) to the CMU based on the detected touch position.
3. The CMU sends (3) the control signal to the related units based on the received touch position signal.

*11 : The LVDS displays the electrical properties of the signal using low-voltage differential signaling. LVDS is a digital, wired transmission technology for the short range which adopts a differential interface having the characteristics of low voltage and low power consumption.



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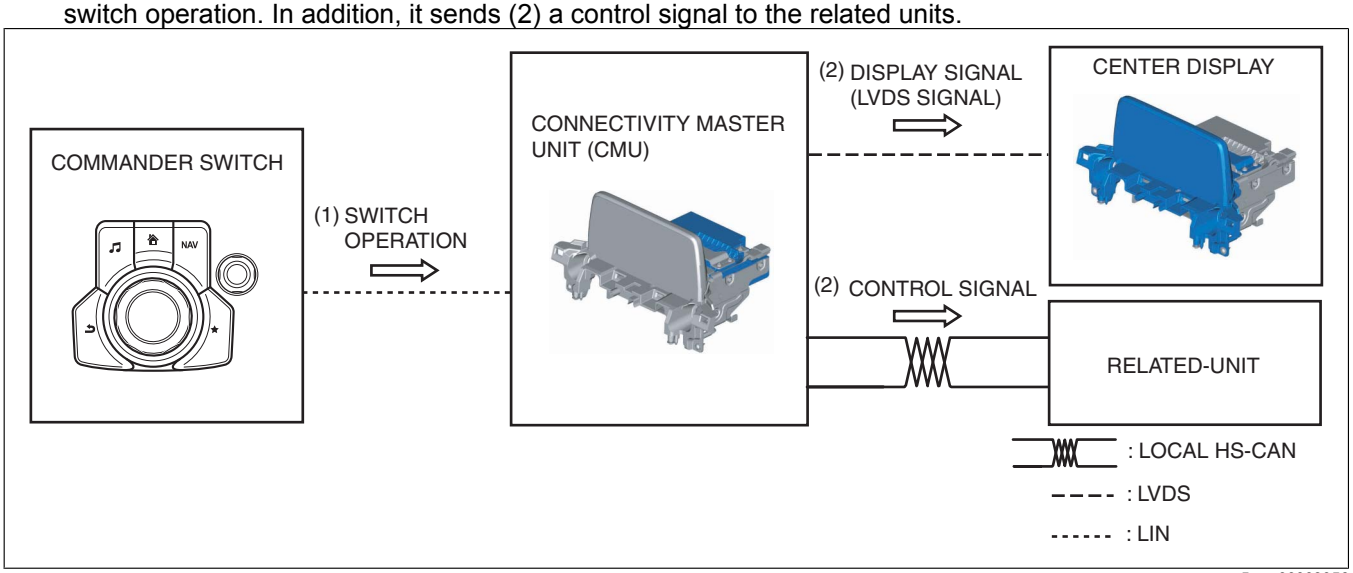
Operation signal reception from commander switch

1. When the commander switch is operated, the CMU detects (1) the commander switch operation.
2. The CMU sends (2) the display signal (LVDS signal) to the center display based on the detected commander switch operation. In addition, it sends (2) a control signal to the related units.



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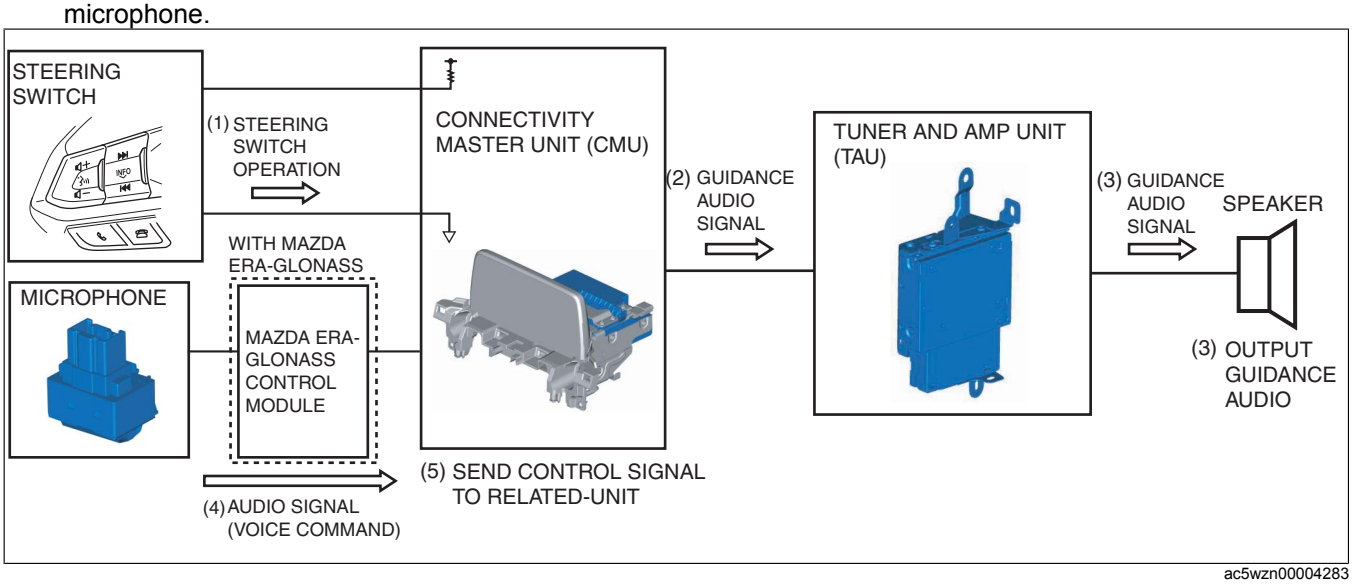
Operation signal reception from voice recognition function

1. When the TALK button on the steering switch is pressed, the CMU detects (1) the steering switch operation.
2. When the CMU detects the steering switch operation, it sends (2) a guidance audio signal to the tuner and amplifier unit (TAU).
3. The TAU sends (3) the guidance audio signal to the speakers and the speakers output (3) the guidance audio.
4. The voice recognition-use microphone converts the words (voice commands) produced by the user after the guidance audio output to an audio signal and sends (4) it to the CMU.
5. The CMU sends (5) the control signal to the related parts based on the audio signal received from the microphone.



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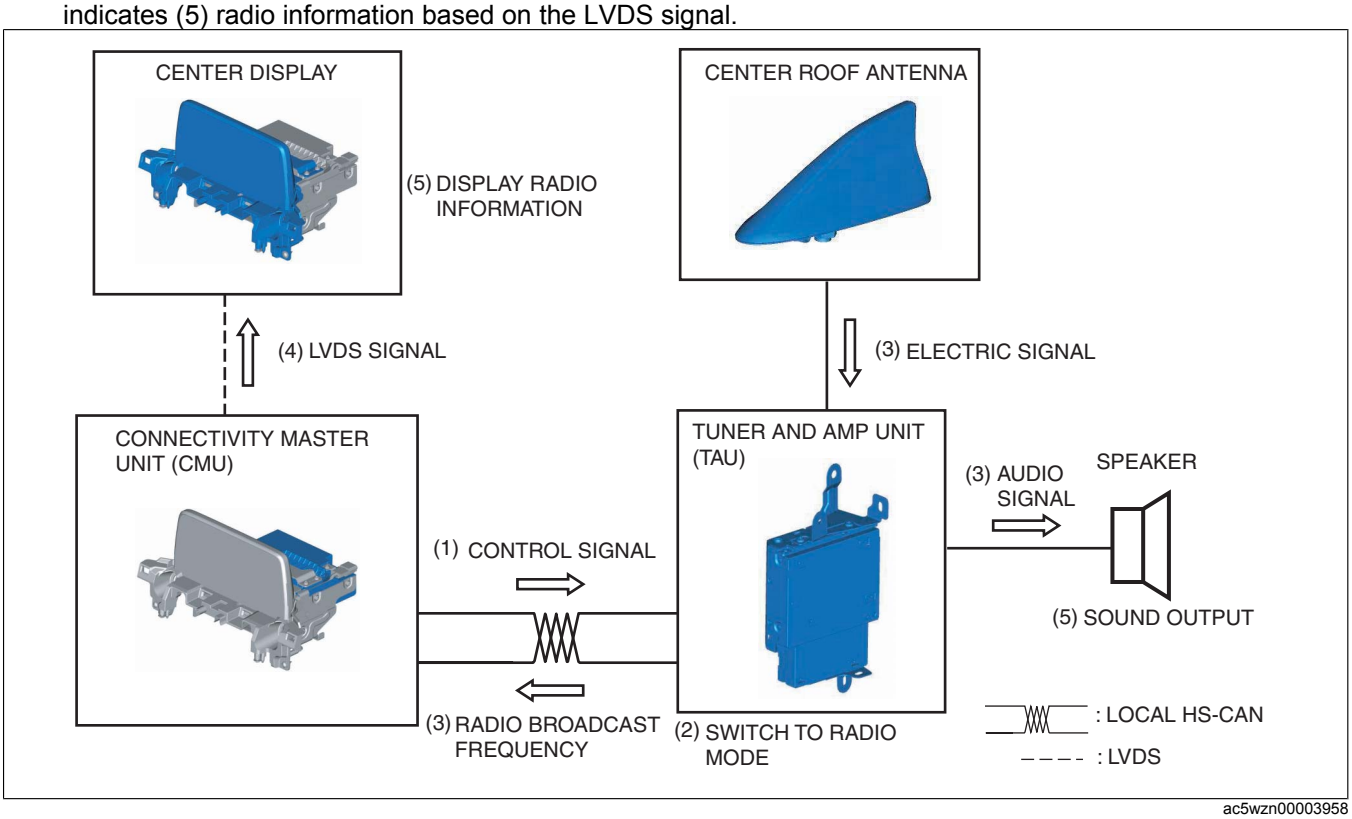
Audio function
AM/FM radio

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU.
2. When the TAU receives the control signal, it switches (2) the tuner inside the TAU to radio mode and initiates reception of radio broadcasts.
3. The TAU detects the radio broadcast selected by the user using the tuner in the TAU based on the electrical signal received (3) from the center roof antenna. The audio signal of the detected radio broadcast is sent (3) to the speakers. In addition, the frequency of the detected radio broadcast is sent (3) to the CMU.
4. The CMU converts the radio broadcast received from the TAU to a LVDS signal and sends (4) the LVDS signal to the center display.
5. The speakers output (5) the audio based on the audio signal sent from the TAU. In addition, the center display indicates (5) radio information based on the LVDS signal.



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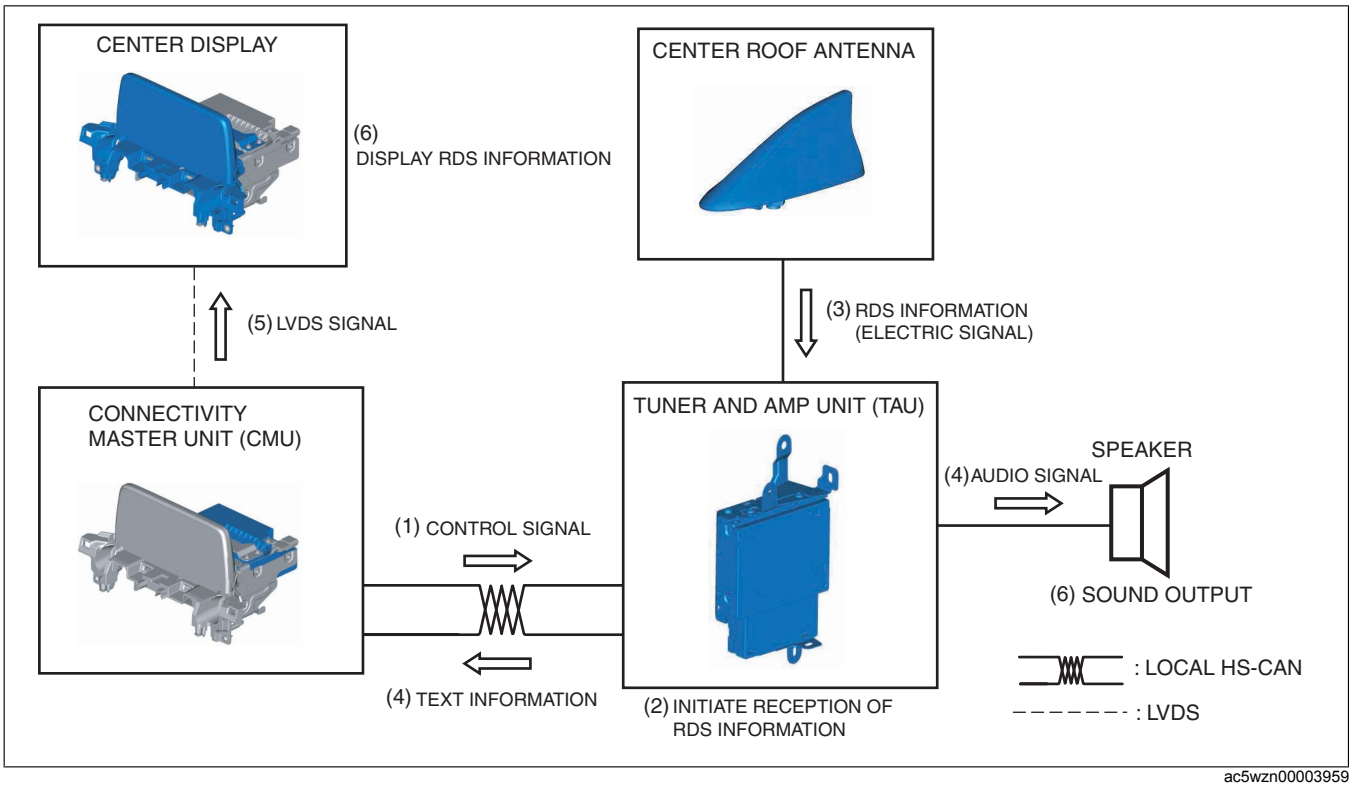
RDS (radio data system)

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU.
2. When the TAU receives (2) the control signal, it starts RDS reception.
3. The center roof antenna sends the received (3) RDS information (electrical signal) to the TAU.
4. The TAU sends (4) text information to the CMU based on the received RDS information. In addition, it sends (4) the audio signal to the speakers.
5. The CMU converts the received (5) text information to a LVDS signal and sends it to the center display.
6. The center display (6) indicates the RDS information based on the received LVDS signal. In addition, the speakers output (6) the audio based on the received audio signal.



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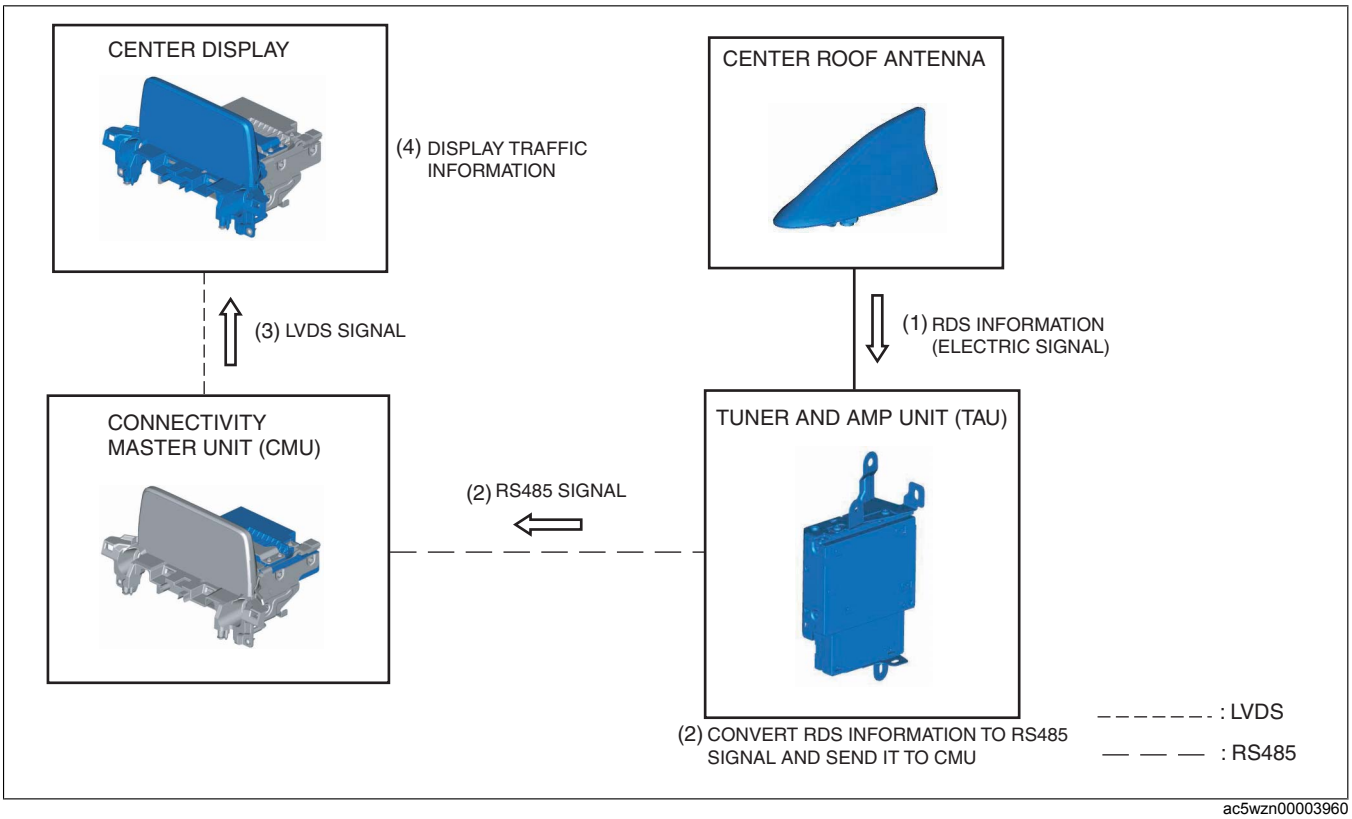
RDS-TMC

1. The center roof antenna converts the radio waves to an electric signal and sends (1) it to the TAU.
2. When RDS data from the electric signal is detected, the TAU converts information such as radio station name and song information to a RS485 signal and sends (2) the converted RS485*11 signal to the CMU.
3. The CMU converts the text information received (3) from the TAU to a LVDS signal and sends the LVDS signal to the center display.
4. Based on the received LVDS signal, the center display indicates (4) traffic information such as the location and distance of traffic jam.

*11 : RS485 corresponds to a linear, multi-drop configuration with bi-directional transmission, which is one of the possible types of serial communication standards, having a maximum transmission speed of 10 Mbps.



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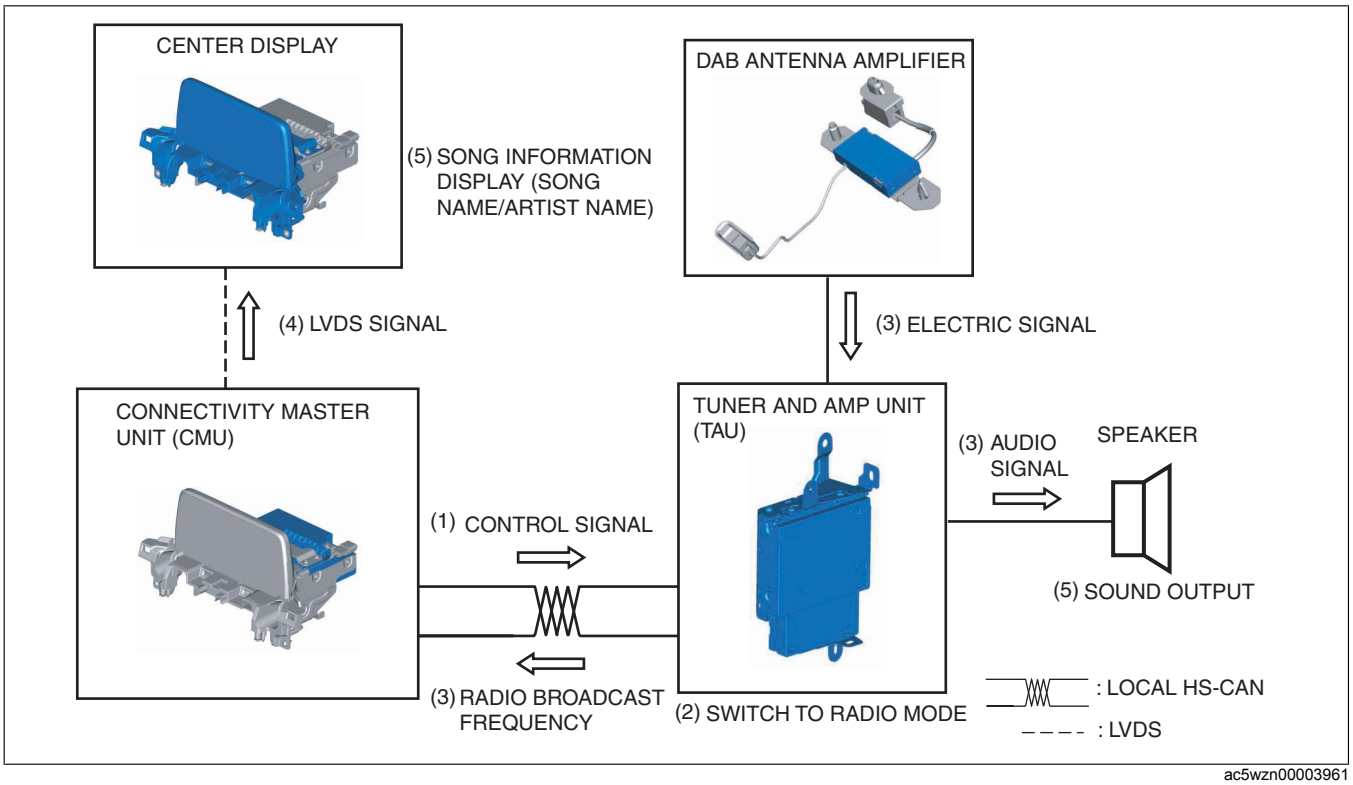
DAB radio

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU.
2. When the TAU receives the control signal, it switches (2) the tuner inside the TAU to radio mode and initiates reception of radio broadcasts.
3. The TAU detects the radio broadcast from the received (3) electric signal from the DAB antenna amplifier, at the tuner in the TAU. The audio signal of the detected radio broadcast is sent (3) to the speakers. In addition, the frequency of the detected radio broadcast is sent to the CMU.
4. The CMU converts the radio broadcast received from the TAU to a LVDS signal and sends (4) the LVDS signal to the center display.
5. The speakers output (5) the audio based on the audio signal received from the TAU. In addition, the center display indicates (5) music information (song name/artist name) based on the LVDS signal.



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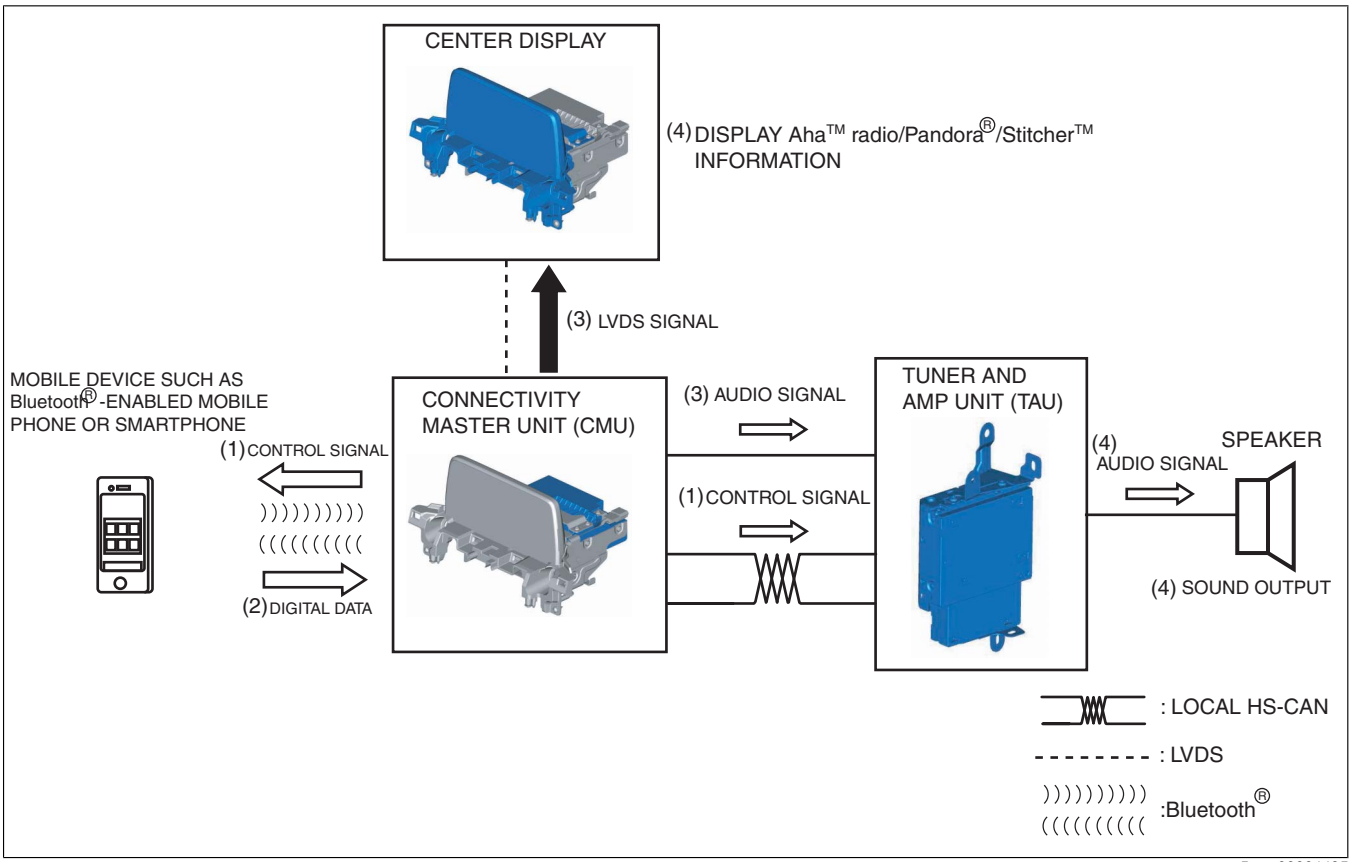
Aha™ radio/Pandora®/Stitcher™ radio

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU and a mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone.
2. When the mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone receives the control signal, it receives the Aha™ radio/Pandora®/Stitcher™ radio and sends (2) the digital data to the CMU.
3. The CMU converts the received video signal of the digital data to a LVDS signal and sends (3) the LVDS signal to the center display. In addition, it sends (3) the audio signal to the TAU.
4. The center display indicates (4) the radio information based on the LVDS signal received from the CMU. In addition, the TAU sends (4) the received audio signal to the speakers. The speakers output (4) the audio based on the received audio signal.



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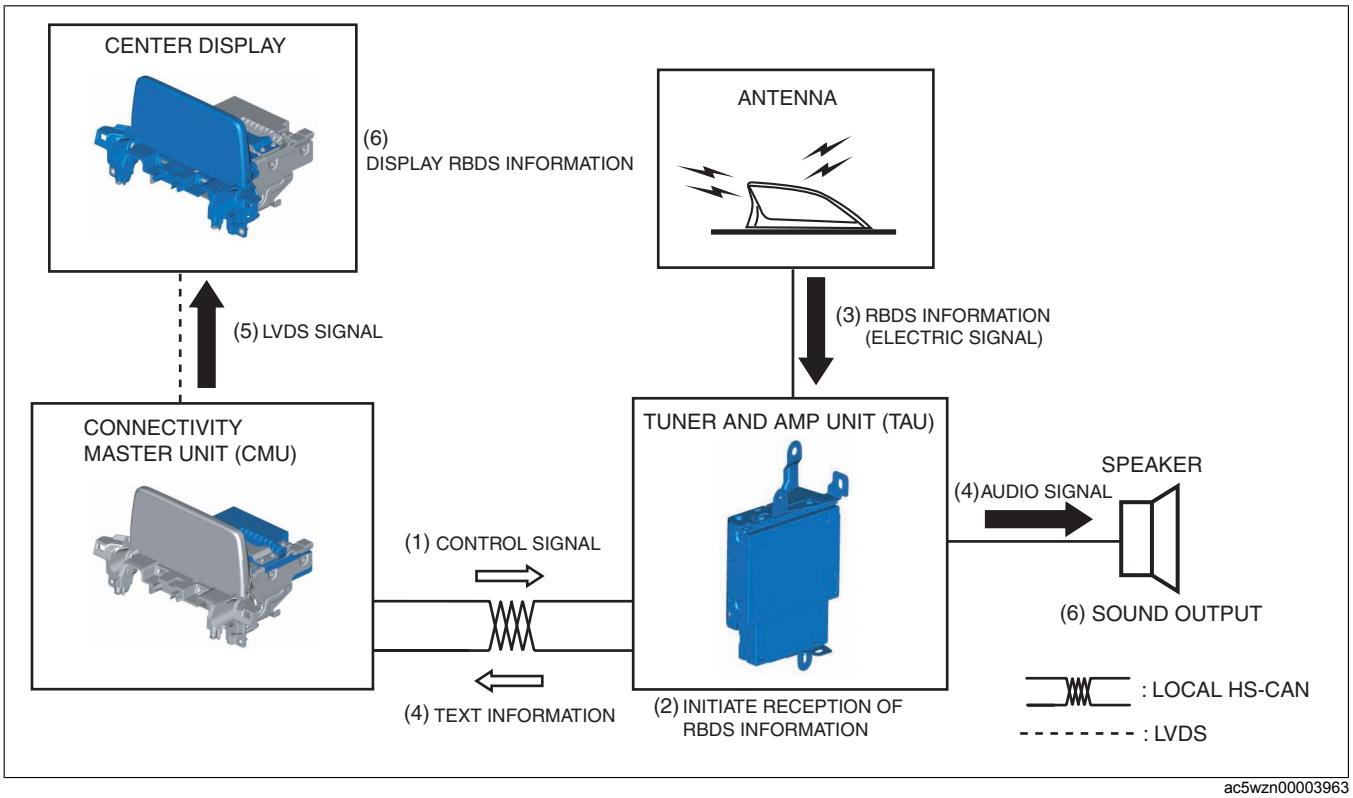
Radio broadcast data system (RBDS)

1. When the CMU receives the operation signal/detects the switch operation, it sends the control signal to the TAU.
2. When the TAU receives the control signal, it starts RBDS reception.
3. The center roof antenna sends the received RBDS information (electrical signal) to the TAU.
4. The TAU sends text information to the CMU based on the received RBDS information. In addition, it sends the audio signal to the speakers.
5. The CMU converts the received text information to a LVDS signal and sends it to the center display.
6. The center display indicates the RBDS information based on the received LVDS signal. In addition, the speakers output the audio based on the received audio signal.



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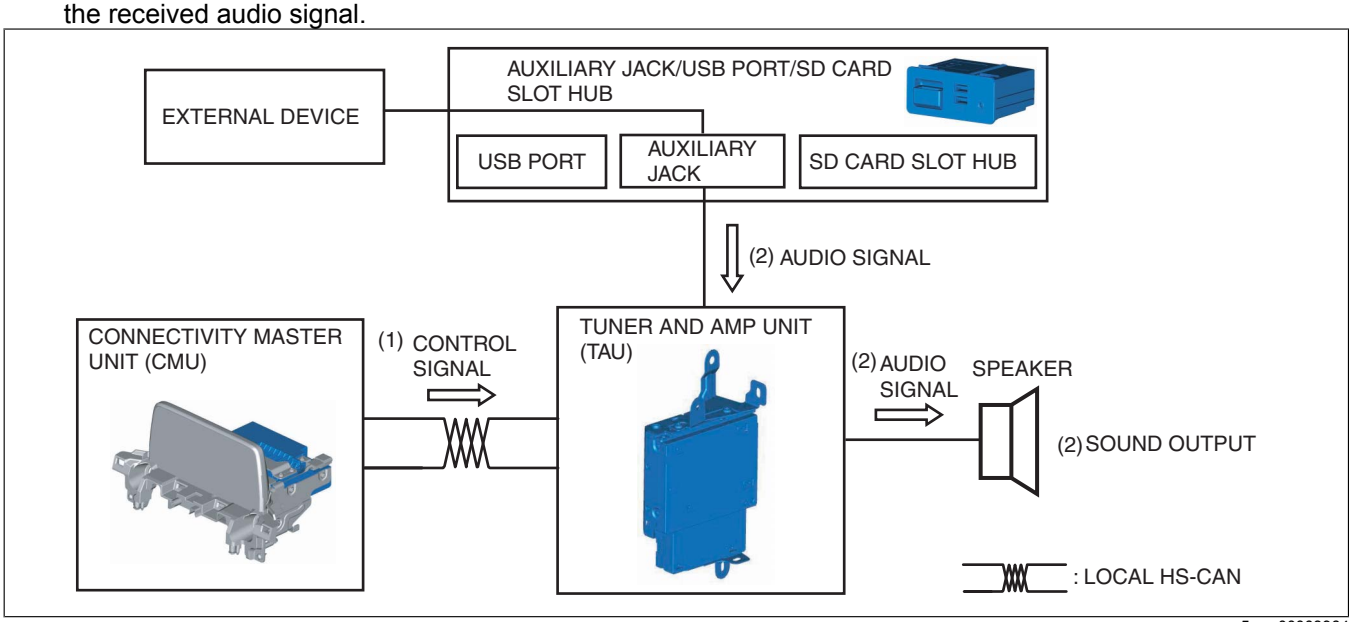
AUX

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU.
2. The TAU sends (2) the received audio signal to the speakers and the speakers output (2) the audio based on the received audio signal.



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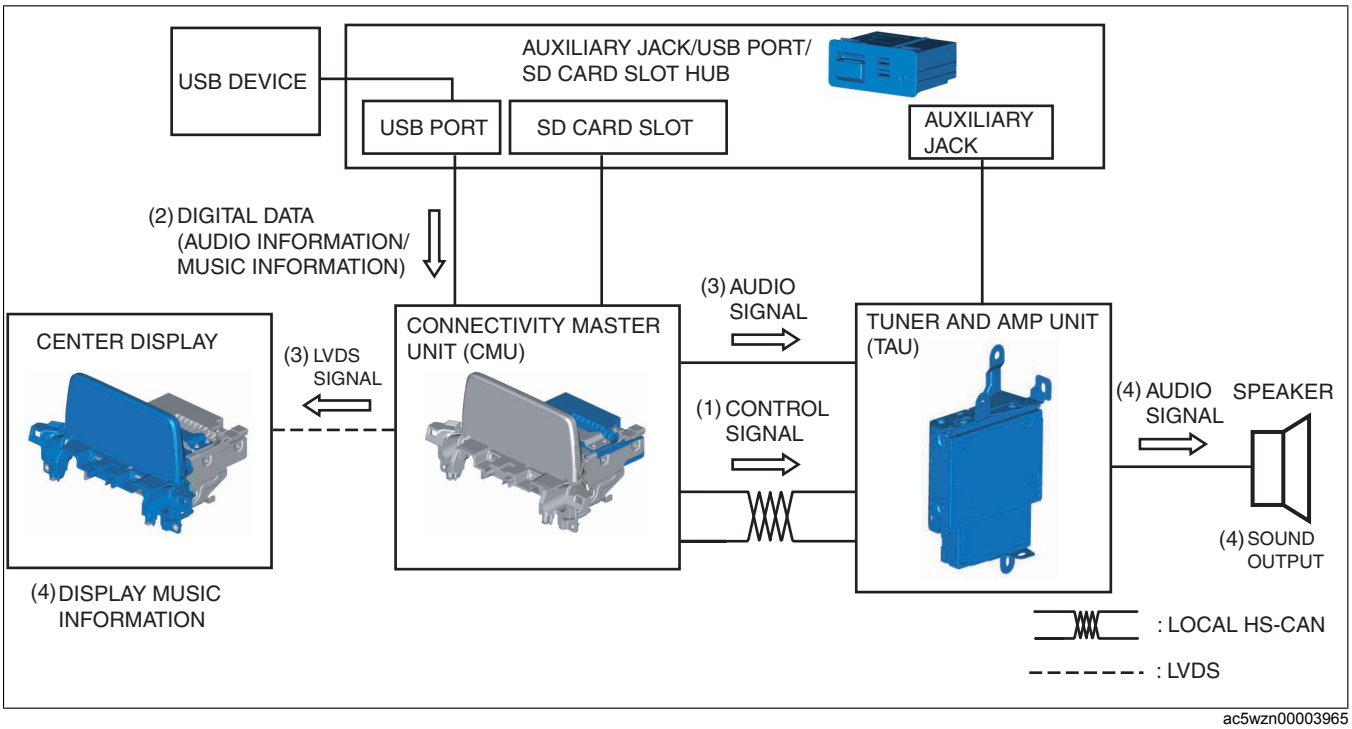
USB audio

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU.
2. The auxiliary jack/USB port/SD card slot hub sends (2) the digital data (audio information/music information such as album name or artist name) of the USB device/iPod connected to the USB port to the CMU.
3. The CMU extracts the audio information and music information from the digital data received, converts the audio information to an audio signal and sends it (3) to the TAU, and converts the music information to an LVDS signal and sends it (3) to the center display.
4. The center display indicates (4) the music information based on the LVDS signal received from the CMU. In addition, the TAU sends (4) the received audio signal to the speakers and the speakers output (4) the audio based on the received audio signal.



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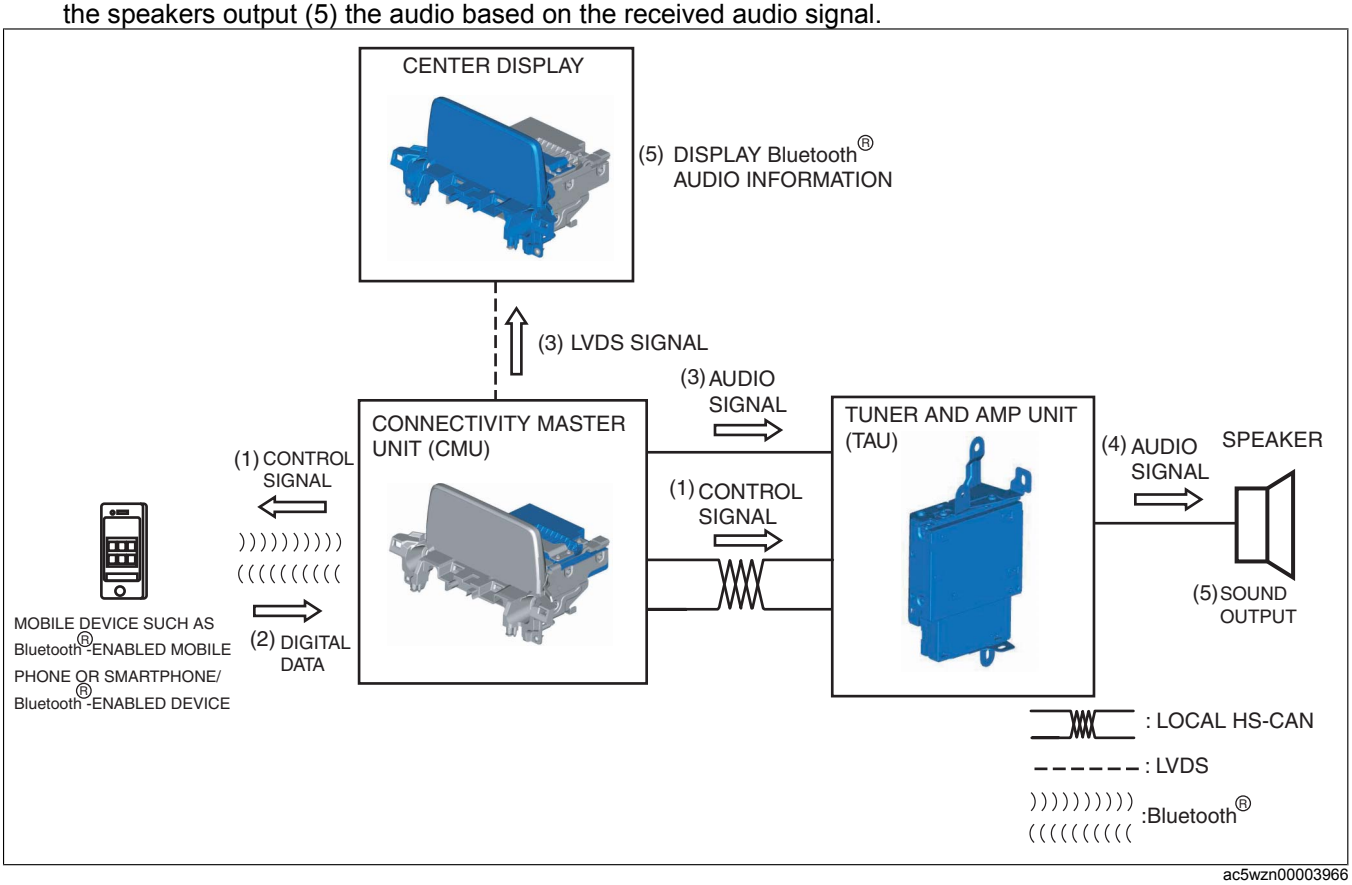
Bluetooth® audio function

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU and a mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone.
2. When the mobile device such as a Smartphone or a Bluetooth®-enabled device receives the control signal, the digital data is sent (2) to the CMU.
3. The CMU converts the video signal of the digital data to a LVDS signal and sends (3) it to the center display. In addition, it sends (3) the audio signal to the TAU.
4. The TAU sends (4) the received audio signal to the speakers.
5. In addition, the center display indicates (5) Bluetooth® audio information based on the LVDS signal. In addition, the speakers output (5) the audio based on the received audio signal.



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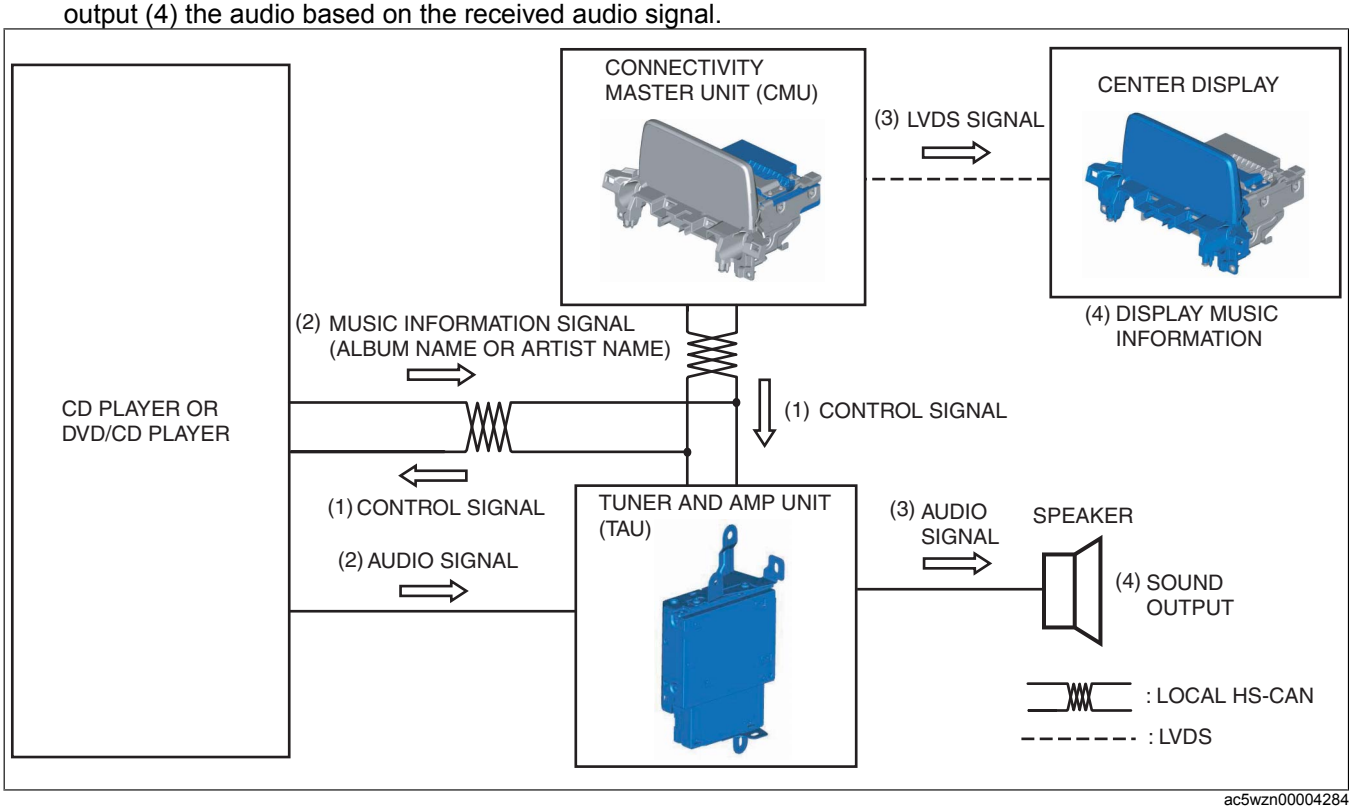
CD playback

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU. In addition, the control signal is sent (1) to the CD player or DVD/CD player.
2. When the CD player or DVD/CD player receives the control signal, it sends (2) music information such as the album name and artist name of the inserted CD to the CMU, and it sends (2) the audio signal to the TAU.
3. The CMU converts the received music information signal to a LVDS signal and sends (3) it to the center display. The TAU sends (3) the received audio signal to the speakers.
4. The center display indicates (4) the music information signal based on the LVDS signal. In addition, the speakers output (4) the audio based on the received audio signal.



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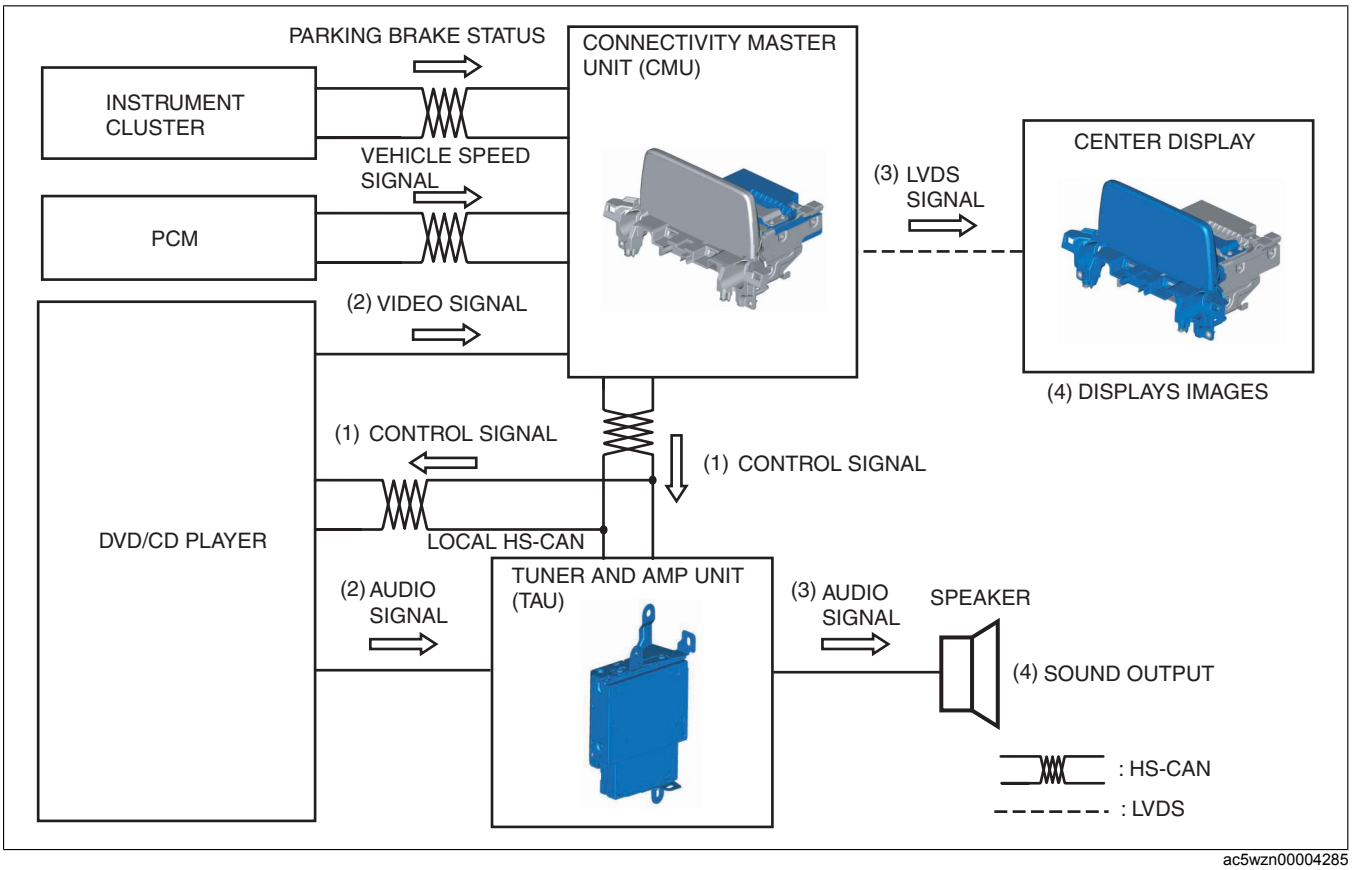
DVD playback

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU and the DVD/CD player.
2. When the DVD/CD player receives the control signal, it sends (2) the video signal of the inserted DVD to the CMU and sends (2) the audio signal to the TAU.
3. The CMU converts the received video signal to a LVDS signal and sends (3) it to the center display. The TAU sends (3) the received audio signal to the speakers.
4. The center display displays (4) the video based on the LVDS signal. In addition, the speakers output (4) the audio based on the received audio signal.

Note

- If any one of the following conditions is met, the DVD images are not displayed and only audio is played.
  - Parking brake OFF signal is received (parking brake is released)
  - Vehicle speed exceeds **9 km/h {6 mph}**
- When all of the following conditions are met, the DVD images are displayed again.
  - Parking brake ON signal is received (parking brake is applied)
  - Vehicle speed is **7 km/h {4 mph} or less**



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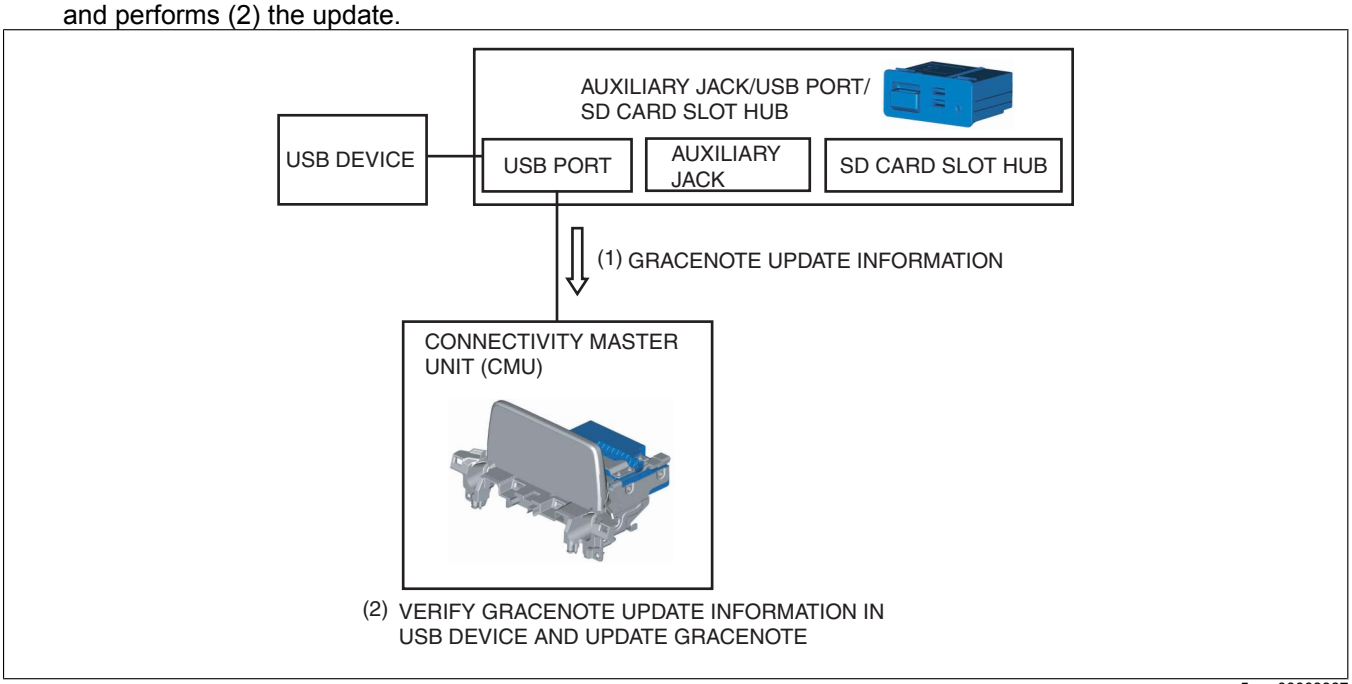
Gracenote updating

1. The auxiliary jack/USB port/SD card slot hub sends (1) the Gracenote update information on the USB device.
2. The CMU verifies the Gracenote update information received from the auxiliary jack/USB port/SD card slot hub and performs (2) the update.



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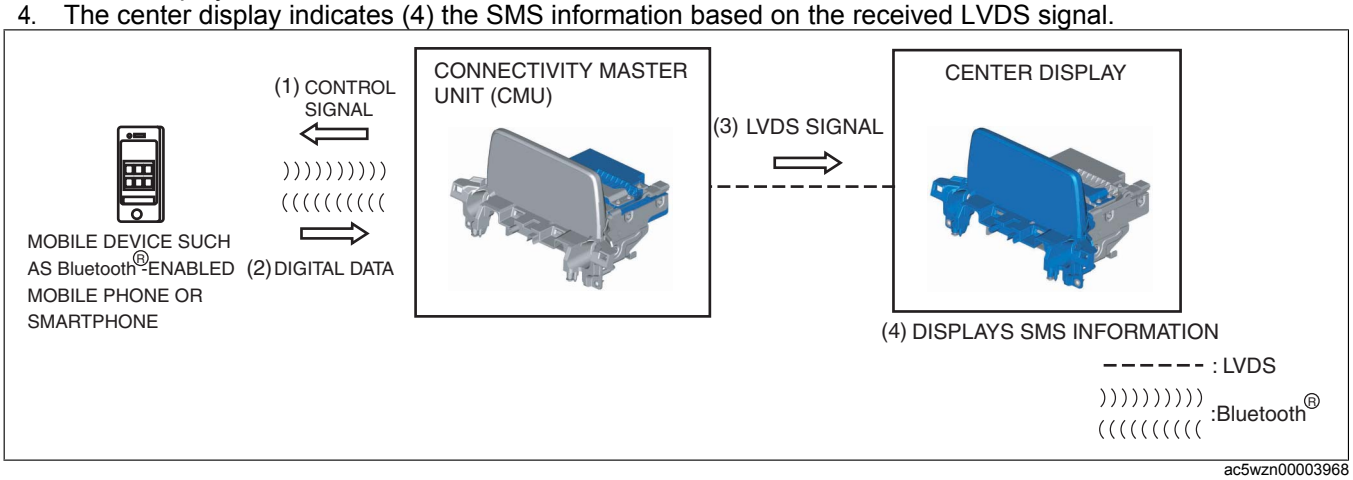
Communication function

SMS (Short Message Service)

1. When the CMU receives the operation signal/detects the switch operation, is sends (1) a control signal to a mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone.
2. When the mobile device such as a Smartphone or a Bluetooth®-enabled device receives the control signal, the digital data is sent (2) to the CMU.

3. The CMU converts the video signal of the digital data to a LVDS signal and sends (3) the LVDS signal to the center display.
4. The center display indicates (4) the SMS information based on the received LVDS signal.



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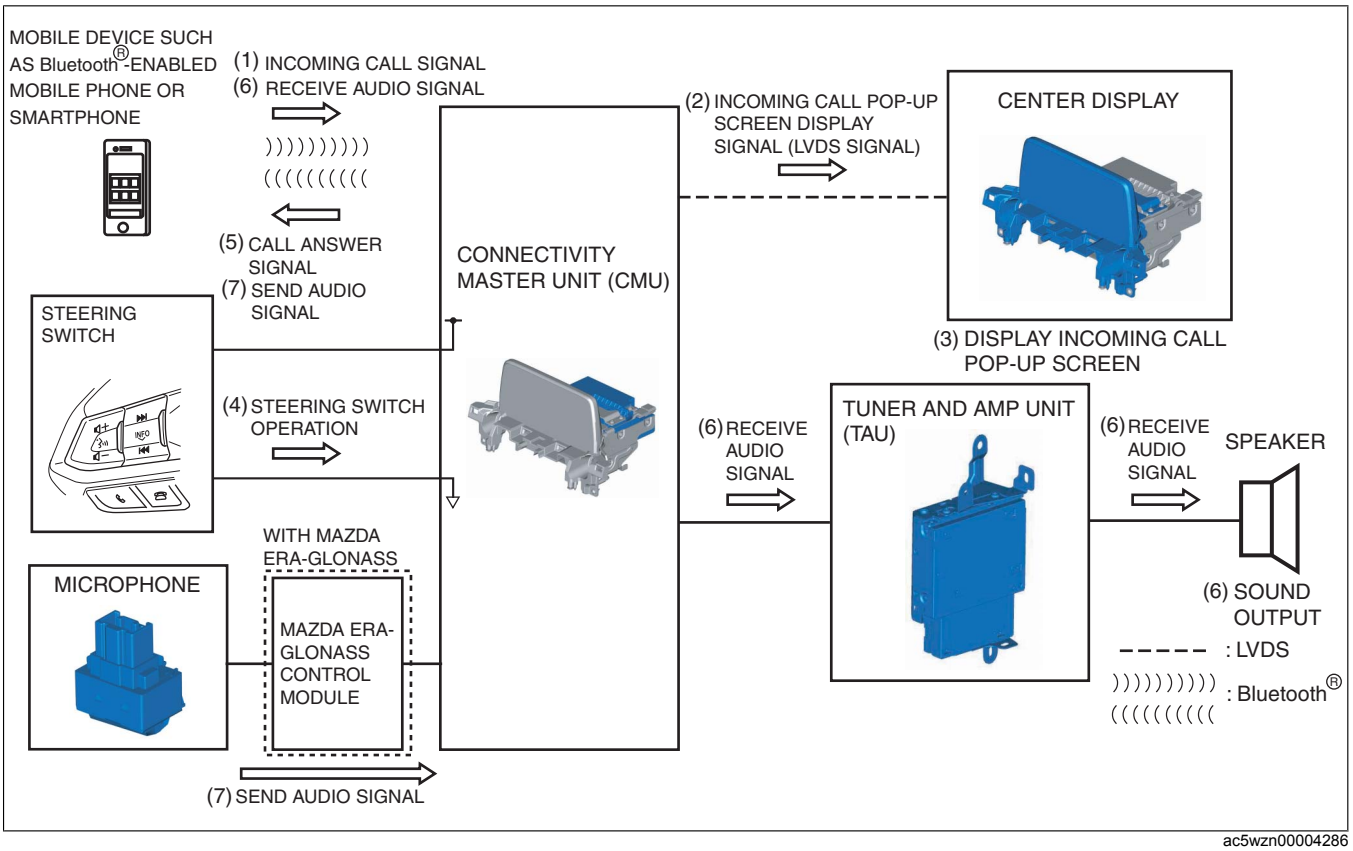
Bluetooth® (Hands-Free) function (incoming calls)

1. When an incoming call is received, a mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone sends (1) the incoming call signal to the CMU.
2. When the CMU receives the incoming call signal, it sends (2) the incoming call pop-up screen display signal (LVDS signal) to the center display.
3. When the center display receives the incoming call pop-up screen display signal (LVDS signal), it displays (3) the incoming call pop-up screen.
4. If the pick-up button on the steering switch is pressed while the incoming call pop-up screen is displayed, the CMU detects (4) the steering switch operation.
5. When the CMU detects the steering switch operation, it sends (5) the call answer signal to a mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone, and the call is initiated.
6. The mobile device, such as a Bluetooth®-enabled mobile phone or a Smartphone, sends (6) the received audio signal to the CMU, and the signal is output (6) from the speakers via the TAU.
7. The voice recognition-use microphone sends the send audio signal of the user to the CMU, and the CMU sends (7) the received send audio signal to a mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone.

Note

- When the call initiates, the incoming call pop-up screen switches to the call screen.



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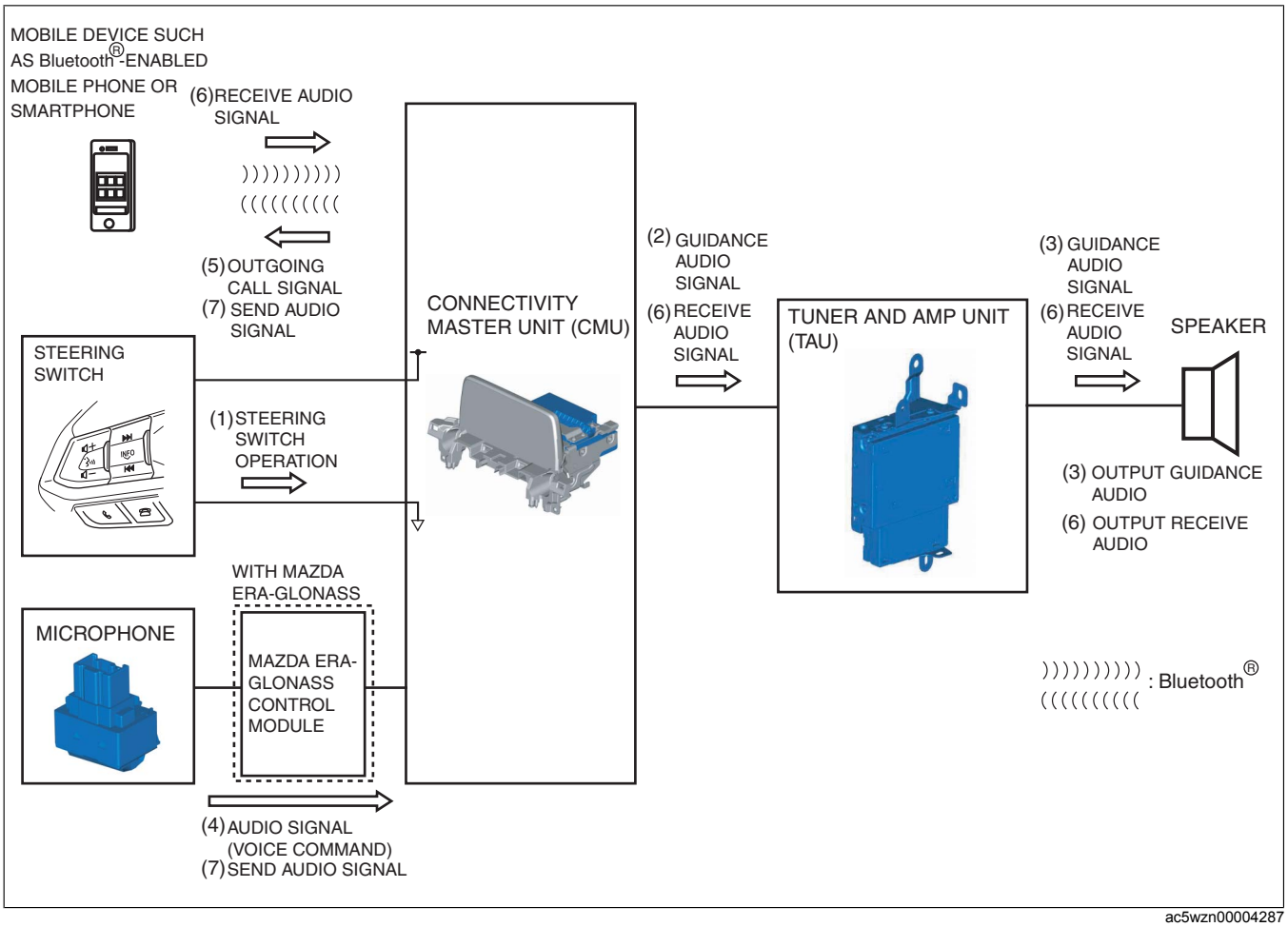
Bluetooth® (Hands-Free) function (outgoing calls)

1. When the TALK button on the steering switch is pressed, the CMU detects (1) the steering switch operation.
2. When the CMU detects the steering switch operation, it sends (2) a guidance audio signal to the TAU.
3. The TAU sends (3) the guidance audio signal to the speakers and the speakers output (3) the guidance audio.
4. The voice recognition-use microphone converts the words (voice commands) produced by the user after the guidance audio output to an audio signal and sends (4) it to the CMU.
5. When the CMU receives the audio signal from the voice recognition-use microphone, it sends (5) an outgoing call signal to a mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone, and the call is initiated.
6. The mobile device, such as a Bluetooth®-enabled mobile phone or a Smartphone, sends (6) the received audio signal to the CMU, and the signal is output (6) from the speakers via the TAU.
7. The voice recognition-use microphone sends (7) the send audio signal of the user to the CMU, and the CMU sends (7) the received send audio signal to a mobile device such as a Bluetooth®-enabled mobile phone or a Smartphone.



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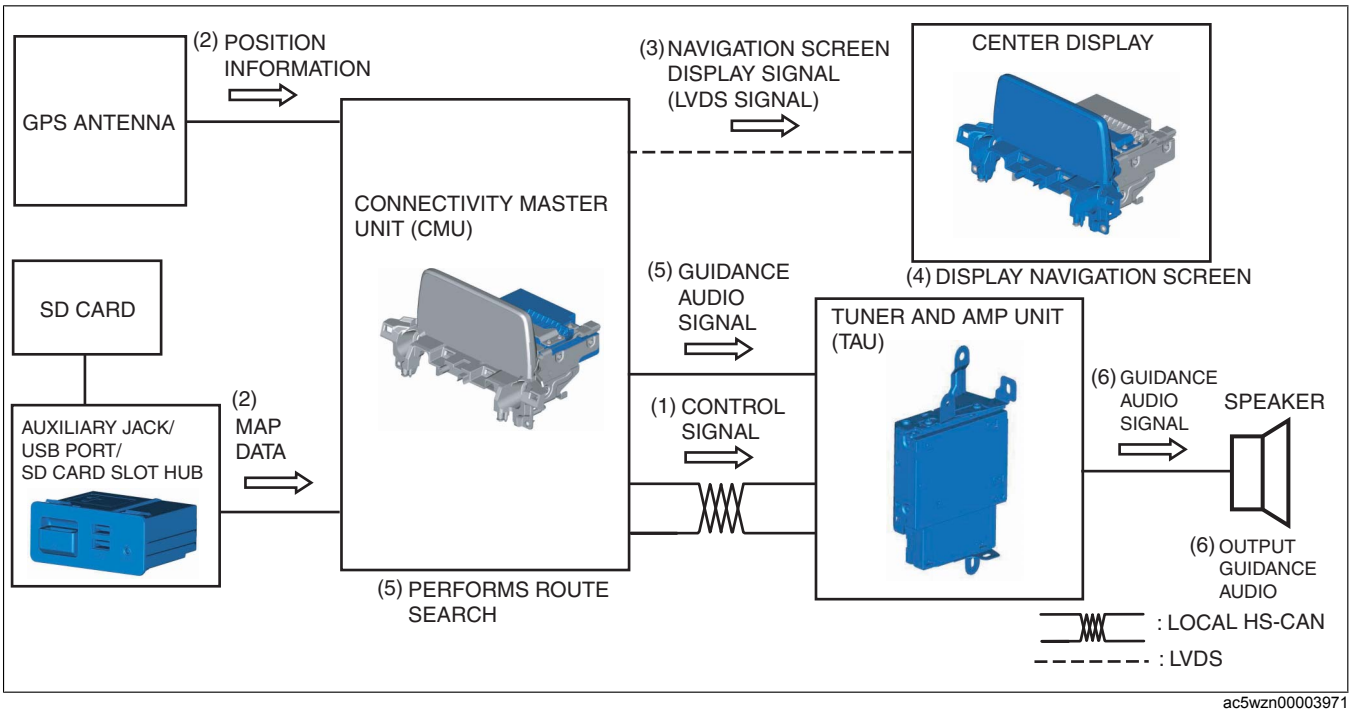
Navigation function
Map display, route guidance

1. When the CMU receives the operation signal/detects the switch operation, it sends (1) the control signal to the TAU.
2. The CMU reads (2) the map information of the SD card inserted in the auxiliary jack/USB port/SD card slot hub. In addition, reception (2) of the position information from the GPS antenna is initiated.
3. The CMU sends (3) the navigation screen display signal (LVDS signal) to the center display based on the SD card map information and the position information from the GPS antenna.
4. The center display displays (4) the navigation screen based on the received navigation screen display signal (LVDS signal).
5. The CMU detects (5) the route to the destination set by the user and sends (5) the guidance audio signal to the TAU after deciding the route.
6. The TAU sends (6) the guidance audio signal to the speakers and the speakers output (6) the guidance audio.



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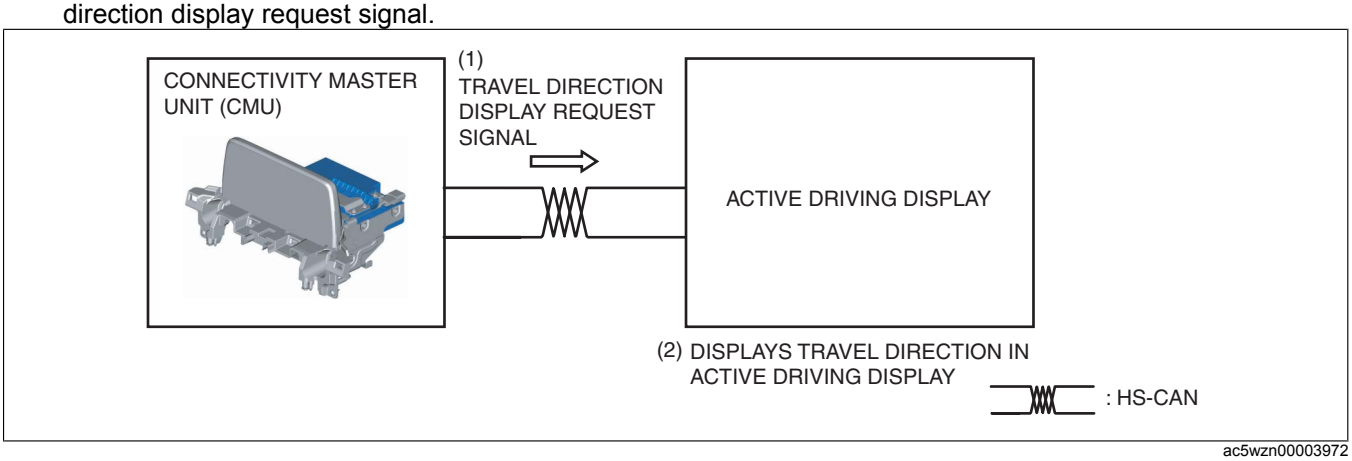
Turn-by-turn (TBT)

1. The CMU sends (1) the travel direction display request signal to the instrument cluster.
2. The instrument cluster displays (2) the travel direction in the active driving display based on the received travel direction display request signal.



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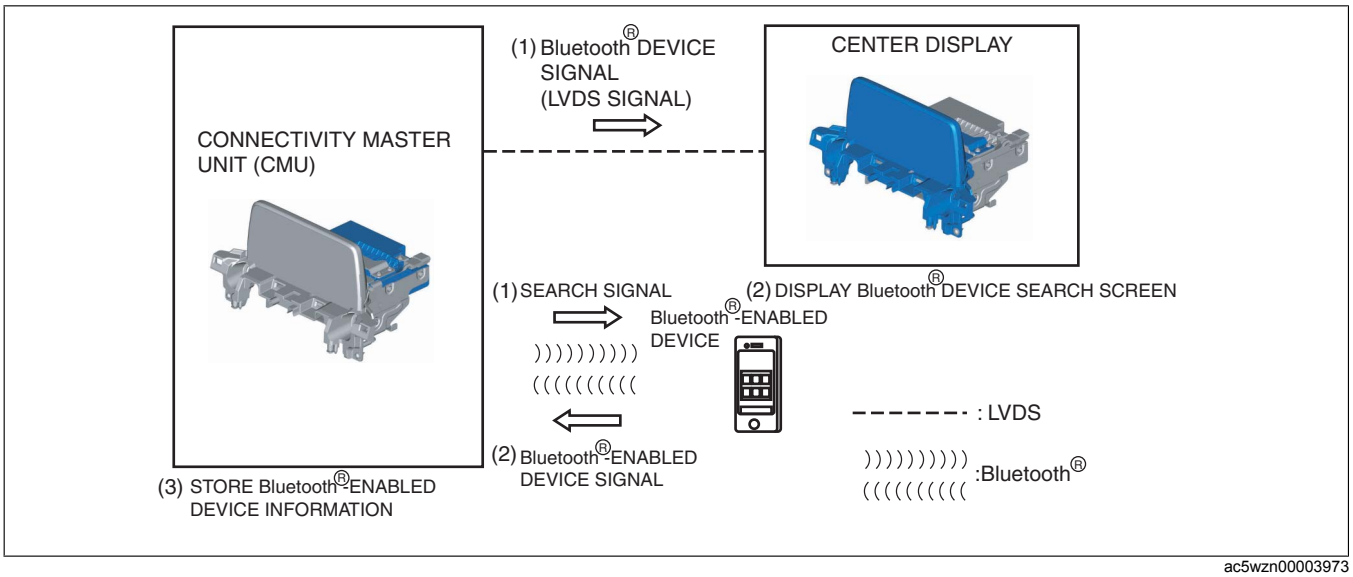
Setting function

Bluetooth® pairing

1. When the CMU receives the operation signal/detects the switch operation, it transmits a search signal to a Bluetooth® enabled device near the CMU and sends (1) the Bluetooth®-device search screen signal to the center display.
2. The Bluetooth®-enabled device near the CMU sends (2) a Bluetooth® device signal to the CMU. In addition, the center display displays (2) the Bluetooth® device search screen.
3. The CMU programs (3) the Bluetooth®-enabled device information based on the Bluetooth® device signal.

Note

- In the following cases, Bluetooth® pairing is canceled.
  - Eight (maximum of 7) Bluetooth® devices have been programmed
  - Bluetooth® device signal is not received during period of **180 s**
  - Cancel is selected during Bluetooth® device search screen display



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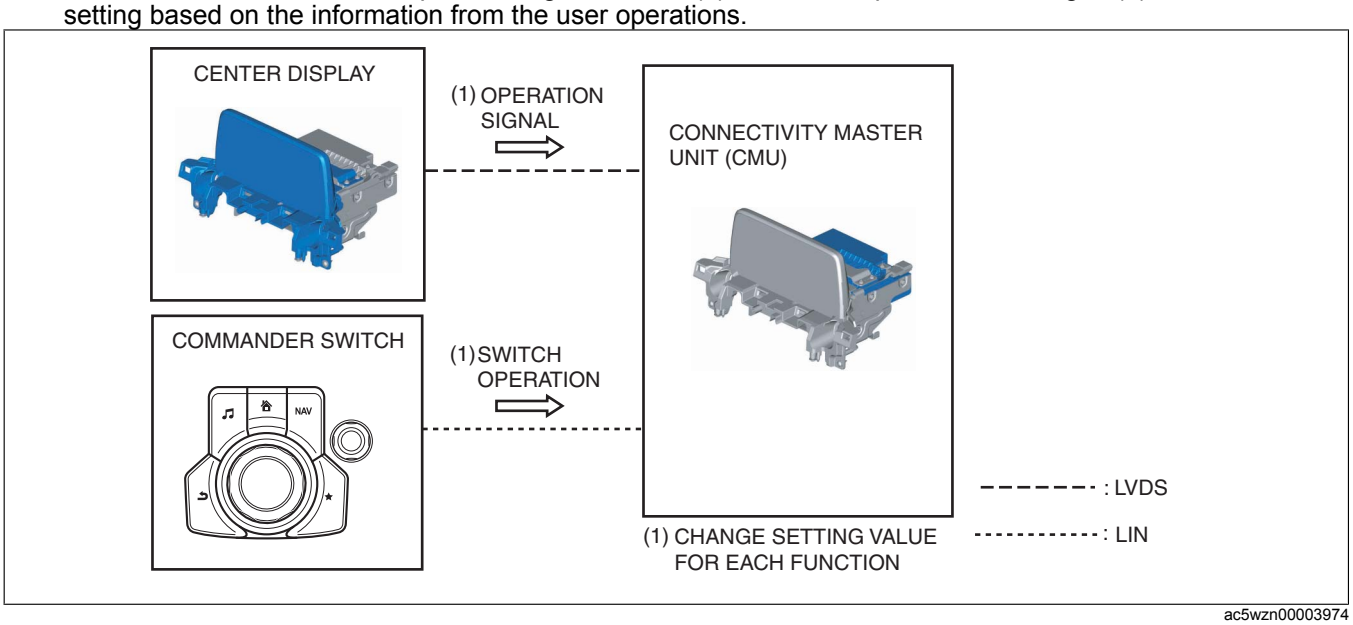
System/screen/clock settings

1. When the CMU receives the operation signal/detects (1) the switch operation, it changes (1) each function setting based on the information from the user operations.



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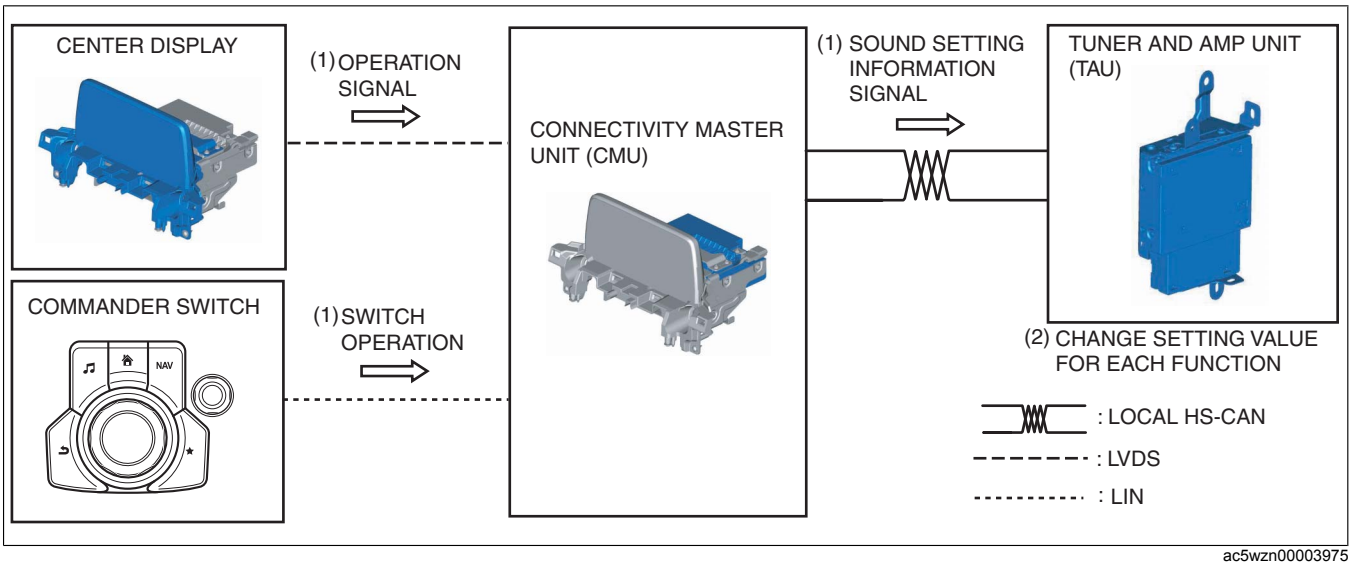
Sound setting (sound quality setting/volume setting)

1. When an operation signal is received/switch operation is detected (1), the CMU sends (1) a sound setting information signal to the TAU based on the information from the user operations.
2. The TAU changes (2) the setting value for each function based on the received sound setting information signal.



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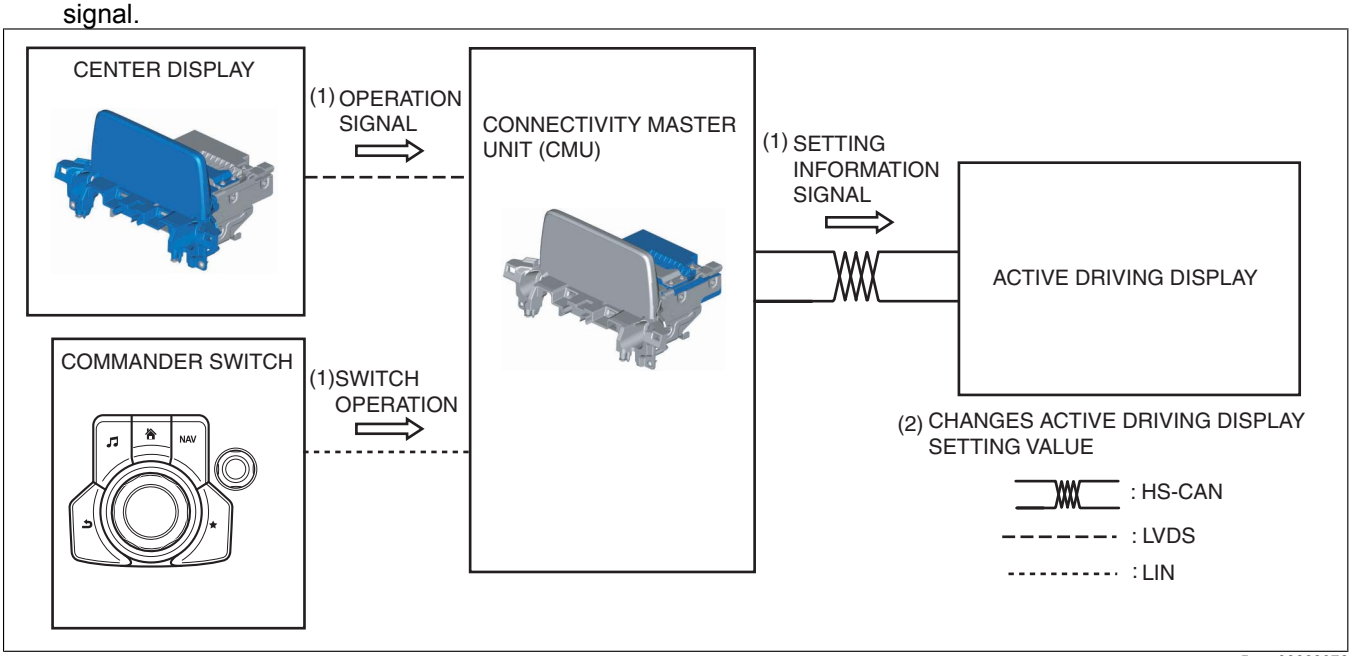
Active drive display setting

1. When an operation signal is received/switch operation is detected (1), the CMU stores the setting value based on the information from the user operations and sends (1) a setting information signal to the TAU.
2. The instrument cluster changes (2) the setting value of the active driving display based on the setting information signal.



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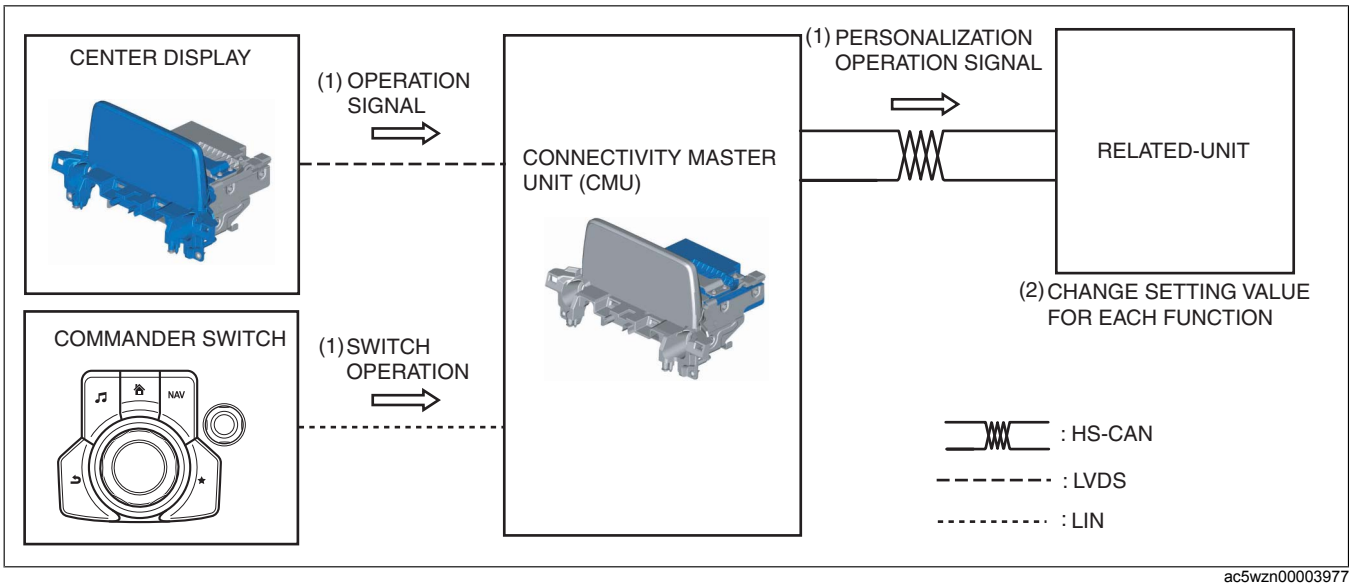
Personalization feature setting

1. When an operation signal is received/switch operation is detected (1), the CMU sends (1) a personalization operation signal to the related units based on the personalization setting information set by the user.
2. The related unit changes (2) each function setting based on the personalization operation signal.



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Application function

Fuel economy monitor

- For details on the fuel economy monitor operation, refer to the fuel economy monitor of the [CENTER DISPLAY]. (See CENTER DISPLAY [WITH CENTER DISPLAY].)

Maintenance monitor

- For details on the maintenance monitor operation, refer to the [MAINTENANCE MONITOR]. (See MAINTENANCE MONITOR [WITH CENTER DISPLAY].)

Warning guidance

- For the warnings, refer to the warning guidance [CENTER DISPLAY]. (See CENTER DISPLAY [WITH CENTER DISPLAY].)