
Information and Entertainment System - Overview

Overview

The audio/SYNC system consists of the following:

Main Components

- 4 speakers (2-door vehicles) (subwoofer speaker and amplifier is optional)
- 6 speakers (4-door vehicles) (subwoofer speaker and amplifier is optional)
- Non-touchscreen display (FCDIM)
- ACM
- APIM
- FCIM
- Microphone
- Audio control steering wheel switches
- AM/ FM antenna
- Satellite antenna
- USB port/cable

Audio System

NOTE: Refer to the Owner Literature for additional details of the audio system.

Main Features

- AM radio
- FM radio
- Battery load shed
- Extended audio play
- Speed compensated volume
- Satellite radio (if equipped)
- MyKey

AM/ FM Radio

The ACM can be operated when the ignition is on or when the accessory delay or the extended audio play feature is active.

AM/ FM fender-mounted antenna receives analog radio waves and sends them through the AM/ FM antenna coaxial cable to the ACM.

The ACM converts the radio waves to sound through the speakers.

RDS (if equipped)

The RDS allows metadata (information such as station call letters, artist, song title and genre) to be contained within FM radio waves. If the RDS feature is enabled, a program type can be chosen. Once a program type (such as Sports, Rock, Religious Music or Weather) is chosen, the ACM only tunes channels within the selected category when the SEEK or SCAN button is pressed. If a channel within the selected category is not found, the ACM continually seeks or scans.

Satellite Radio (if equipped)

Satellite radio is a subscription-based service.

The roof-mounted satellite radio antenna receives signals containing metadata (information such as station call letters, artist, album title, song title and genre) and digital satellite radio audio. The metadata displays on the non-touchscreen display (FCDIM) and the audio is converted into sound from the speakers.

Accessory Delay Feature

The accessory delay feature allows the audio system to be operated for a preset period of time after the ignition is turned off and a front door has not been opened.

Audio Extended Play Feature

This feature allows the audio system to operate with the ignition OFF. When the power button on the FCIM is pressed, the audio system activates and remains active for a period of up to 30 minutes, depending on configuration settings. Audio extended play does not function if the battery load shed is active.

Battery Load Shed Feature

Once certain criteria have been met (such as low battery state of charge, time elapsed or an excessive percentage of charge has been drained) the audio system turns off to save the remaining battery charge. Under this condition, "Battery Saver - System Off" displays on the non-touchscreen display (FCDIM) to notify the driver that battery protection actions are active. To clear the load shed state, start the vehicle.

Chimes

Various vehicle systems send chime requests use the audio system to alert the driver.

For specific chime information,

Refer to: [Warning Chimes - Overview](#) (413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

Refer to: [Warning Chimes - System Operation and Component Description](#) (413-01 Instrumentation, Message Center and Warning Chimes, Description and Operation).

Speed Compensated Volume

The speed compensated volume feature compensates for wind and road noise by adjusting the audio system volume based on the vehicle speed and the selected setting.

When a MyKey is in use and the MyKey Volume Limiter is enabled, the speed compensated volume feature is disabled.

Subwoofer Amplifier and Speaker Enclosure (if equipped)

The subwoofer enhanced the sound experience by producing the low notes to be heard which the other speakers are incapable of.

Noise Suppression Equipment

The radio frequency suppression equipment (examples are: radio ignition capacitors and radio antenna noise isolators if equipped) reduce interference transmitted through the speakers by the engine, ignition, and electrical systems. When installing any new radio suppression equipment components, make sure a good contact is made at all connections.

Steering Wheel Audio Controls

The right steering wheel switch is used to remotely control audio system functions. Each steering wheel switch function corresponds with a specific function of the audio system. The right steering wheel switch consists of a multi-button switch that operates the volume +/-, seek +/- and the audio mode functions.

SYNC System

NOTE: *Refer to the Owner Literature for additional details of the SYNC system.*

Main Features

- SYNC
- SYNC AppLink
- Bluetooth mode
- Compass
- 911 Assist or emergency assistance
- MyKey

The SYNC system is a hands-free communication and entertainment system that supports many features. All features are not available with every phone.

The SYNC system provides the following abilities:

- Connect media devices (such as a MP3 player or USB memory storage device) to play audio files
- Control the entertainment system using voice commands
- Initiate an emergency assistance call when the airbags deploy
- Play media files via a paired Bluetooth-enabled audio device
- Send and receive phone calls via a paired Bluetooth-enabled phone
- Send and receive text messages via a paired Bluetooth-enabled phone

Steering Wheel SYNC Controls

The right steering wheel switch is used to remotely control the audio system and the SYNC system functions. Each steering wheel switch button corresponds with a specific function of the audio and SYNC system. The right steering wheel switch consists of a multi-button switch that operates the begin/end call, mute and voice functions.

Bluetooth Mode

Bluetooth is a secure, short-range radio frequency that allows devices to communicate with the SYNC system. The operating range of a Bluetooth signal is application specific, but has a minimum range of 10 meters (33 feet).

The SYNC system supports multiple Bluetooth profiles, allowing the SYNC system to interact with both Bluetooth enabled phones and Bluetooth-enabled media devices.

Any Bluetooth-enabled device must first be paired with the SYNC system before it can become operational. Pairing a Bluetooth-enabled device is accomplished through the "Add Device" selection of the phone menu. When pairing a device, the SYNC system generates a unique PIN that must be confirmed on the Bluetooth enabled device in order for the pairing process to be successful.

Multiple Bluetooth-enabled phones and Bluetooth-enabled media devices can be paired to the SYNC system at the same time. The SYNC system supports an active connection with one Bluetooth-enabled phone and one Bluetooth-enabled media device at a time. If an additional device of either type is paired and made active, the SYNC system ends any active connection with an already-paired device, and establishes an active connection with the new device.

It is important to understand that while most Bluetooth-enabled devices can pair with the SYNC system, not all Bluetooth enabled devices have the same level of available features when interacting with the SYNC system. To determine if a Bluetooth-enabled device or feature is supported, review the device compatibility list, refer to the appropriate Ford authorized website to view a list of compatible devices and features.

USB Mode

When a portable media device, such as an iPod® with its available cable or a portable mass storage device such as a USB flash drive, is connected to the vehicle audio system through a USB port, media files from the device can be played through the vehicle speakers. Functions such as volume, seek, fast forward, pause, etc. can be controlled with the vehicle audio controls.

When playing media files stored on a mass storage device such as a USB flash drive, the SYNC system only plays supported file types that do not have DRM protection and are contained on a properly formatted device.

In addition to audio information (track length, track number, etc.), metadata (information such as artist, album title, song title, and genre) may also be sent to the audio system from a device connected to the USB hub. The audio system uses the metadata to create indexes that can be used to sort for particular music based on the customer preferences. Not all USB devices can send metadata to the audio system. When a new media device is connected to the audio system, the information is automatically indexed. This may take several minutes depending on the amount of data on the device and is considered normal operation. When a device that was previously connected to the audio system is reconnected, the index updates rather than creating a new one. This reduces the time needed to index the device.

USB Hub

The USB hub contains two illuminated USB ports. The USB ports allow audio from portable media devices to play through the vehicle speakers.

The USB hub can be used to power and/or charge a device if the device supports this feature and does not have a power consumption requirement of more than approximately 5 volts and 2.5 amps (approximately 13 watts).

SYNC AppLink

The SYNC AppLink feature allows applications installed on the device to be controlled using the steering wheel switch and/or the FCIM.

All devices must be paired with the SYNC system via Bluetooth. Additionally, Apple® devices must be connected to a USB port.

Data is transmitted back and forth between the device and the SYNC system through Bluetooth or the USB port with Apple® device.

Voice Recognition

Voice recognition allows certain phone and audio system functions to be controlled with voice commands to reduce or eliminate the need to physically interact with the non-touchscreen display (FCDIM or a paired device while driving).

When the steering wheel voice button is pressed, an audible prompt is heard from the speakers. Based on the setting, audible prompts are either a voice or a simple tone. When the interaction mode is set to standard, a detailed voice guidance is provided. When the interaction mode is set to advanced, most prompts are tones only and minimal voice guidance is provided. The microphone receives the voice commands and the system responds based on the interpreted input.

TTS Feature

The TTS feature converts text into an audible speech through the audio system speakers so it does not have to be read from the device while driving. Examples include incoming text message sender information, text messages, and metadata from audio being played via the USB or Bluetooth.

Compass (if equipped)

The GPS antenna (integrated into the satellite radio antenna) is used to acquire the compass heading that displays in the instrument cluster message center display.

911 Assist or Emergency Assistance

The 911 Assist or emergency assistance feature is used to call for help in the event the airbags are

deployed. This only operates when a cellular phone has been successfully paired and actively communicating with the audio system.

MyKey Audio Operation

NOTE: *Refer to the Owner Literature for additional details of the MyKey feature.*

There are configurable and non-configurable items.

Non-Configurable Items

- **Belt-Minder:** The audio system is muted, and “MyKey Buckle Up to Unmute Audio” displays in the information display until the safety belts are buckled.
- **Satellite Radio:** Adult content channels are blocked by being muted.

Configurable Items

- **911 Assist or emergency assist:** If the administrator has selected “Always On” in the MyKey menu, 911 Assist or emergency assistance is enabled and cannot be disabled.
- **Do Not Disturb:** If the administrator has selected “Always On” in the MyKey menu, the Do Not Disturb feature is enabled and cannot be disabled.
- **Speed Compensated Volume:** If the administrator has enabled the Volume Limiter feature, the speed compensated volume feature is disabled.
- **Speed Limiter:** If the administrator has enabled the Speed Limiter feature, the audio volume level is temporarily reduced so the top speed alert chime can be heard when the preselected top vehicle speed is reached.
- **Speed Minder:** If the administrator has enabled the Speed Minder feature, the audio volume level is temporarily reduced so the speed alert chime can be heard when the preselected Speed Minder vehicle speed is exceeded.
- **Volume Limiter:** If the administrator has enabled the Volume Limiter feature, the audio system volume is limited to approximately 50%. In an attempt to exceed the limited volume, “MyKey Volume Limited” displays on the information display.