The Ford F-250 XLT's SYNC® infotainment system placed overall moderate demand on drivers in the on-road study. Certain features are locked out while the vehicle is in motion, creating simple and more limited interactions with the system, which helps reduce distractions and keep the driver on task.

Researchers evaluated 30 new 2017 vehicles’ infotainment systems* to measure overall demand** placed on a driver when using voice command, touch screen and other interactive technologies to make a call, send a text message, tune the radio or program navigation, all while driving down the road.

** STRENGTHS **

- Certain functions are locked out while driving.
- The center stack allows drivers to make quick and simple selections.

** WEAKNESSES **

- Icons and text presented on the center stack are small. Larger buttons and text could improve usability.
- Drivers found some voice system features related to texting cumbersome (i.e., saying a contact’s phone number instead of name when reading a text message).

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* Infotainment System: Vehicle system that combines entertainment and information content
** Overall demand measured: visual (eyes-off road), cognitive (mental) and time-on-task
VEHICLE OVERVIEW: CONTROLS AND DISPLAYS

- VOICE COMMANDS
- STEERING WHEEL COMMANDS
- INSTRUMENT CLUSTER
- CENTER STACK
## CALLING AND DIALING

The Ford F-250 infotainment system allows drivers to make phone calls via voice commands or the center stack, with some limited functionality, when a phone is connected to the car via Bluetooth. This service is also available via the steering wheel and instrument cluster. Drivers can pair a phone by following prompts in the center stack’s phone menu. With a phone paired, drivers can dial numbers or call contacts stored on the paired phone. As a safety measure, the center stack restricts drivers from accessing the dial pad and phonebook while the vehicle is in motion. However, drivers can still make calls via the center stack while the vehicle is moving by using the speed dial function in the phone menu.

On-road study results showed the Ford F-250’s calling and dialing functions presented moderate demand. While the vehicle’s voice command system allows the driver’s eyes to remain on the roadway when placing a call, interactions took longer than the recommended 24 seconds.

## TEXT MESSAGING

When a phone is paired to the infotainment system, drivers can view text messages and send replies through the center stack. Drivers may also listen to and navigate through messages using voice commands. However, while the vehicle is in motion, the system locks out any reply function, only allowing drivers to listen to messages.

On-road study results showed the F-250’s text messaging system places moderate demand on a driver. With the system only allowing drivers to listen to a message while the vehicle is in motion, the likelihood of excessive interaction and demand is reduced.

## AUDIO ENTERTAINMENT

The F-250’s audio entertainment system comes equipped with: AM, FM and XM radio; CD player; Bluetooth; and USB audio input. It also offers Pandora and Spotify, if installed on a paired phone. Drivers can access audio entertainment via steering wheel controls, voice commands and the center stack screen.

The voice system offers a fast and simple way for drivers to select a new audio source, placing moderate demand on drivers. Researchers had positive comments, as the system recognized a variety of audio-related voice commands with accuracy. It also repeats drivers’ voice commands to ensure that it has correctly understood the input. In the on-road study, drivers were able to use their voices to select a new audio source quickly.

The center stack also offered drivers a quick way to make audio selections, albeit with somewhat higher levels of visual (eyes-off-road) and cognitive (mental) demand. The audio menu contains submenus that are not clearly labeled, making them difficult to find.

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* Compared to a recommended maximum of 24 seconds

^ Researchers with expertise about how humans interact with technology evaluated the usability of the infotainment system in stationary vehicles.
VOICE COMMANDS

Drivers can use voice commands to answer phone calls, dial numbers, access integrated mobile applications and access audio entertainment. To activate voice commands, drivers press the voice recognition button on the steering wheel. When active, the voice system status displays on the center stack screen and answers with an automated female voice.

INSTRUMENT CLUSTER

The instrument cluster positioned behind the steering wheel features a 4.2-inch LCD display that lets drivers make selections from five different menus. It gives access to display mode, trip and fuel metrics, towing, off-road and settings. The instrument cluster also has familiar dials and gauges surrounding the LCD display.

STEERING WHEEL CONTROLS

The steering wheel has 20 dedicated buttons. Five buttons on the left side control the instrument cluster display and five buttons on the right control media and audio entertainment. The remaining buttons control voice recognition and phone-related functions, as well as cruise control.

CENTER STACK

The center stack comes equipped with a 4.2-inch non-touch screen digital display containing menus for audio entertainment, settings and phone-related functions. Drivers can access the panel display primarily via the 34 physical buttons and dials on the center stack and through voice commands. Some limited audio-related functions are also accessible through steering wheel controls.

Further down the center stack are the F-250’s climate controls, with seven buttons and two dials. The climate controls feature an icon of a person overlaid on the buttons to help drivers visualize instructions on how to adjust the fan.

VEHICLE SALES SUMMARY

The 2017 Ford F-250 is part of the top selling F-series line of vehicles, with 820,799 vehicles sold during 2016.