



Quality: Listening to Customers Creates the Voice of the Vehicle



Vehicles emit a wealth of sounds — from the purr of an engine to the chime of a seat belt reminder to the solid click of a door closing. Every sound is important, and at Ford, none is overlooked.

To ensure that specific sounds evoke the appropriate responses in drivers and passengers, Ford engineers listen carefully. In specially created sound and vibration “listening laboratories,” the company has created an environment that allows researchers to not only measure sound, but gauge how that sound is perceived by customers.

In these labs, recordings of a multitude of vehicle sounds, like chimes, motors, switches and levers, are taken, measured, and then evaluated by internal and external customers in a controlled environment.

“We know what quality sounds like because customers have told us,” said Mark Vojitsek, manager of Vehicle Integration. “We know the metrics of each, and we design to create those sounds customers prefer.”

Sound of silences



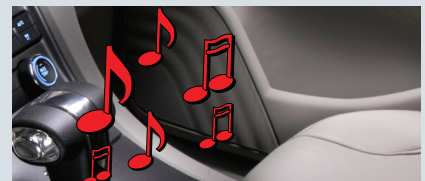
Sometimes, no sound is the best sound. Customers say interior quietness is very important, and so Ford engineers stress that. They also conduct extensive wind tunnel testing to eliminate distracting wind-flow noise.

No sound too subtle



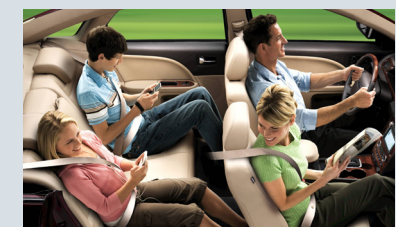
“Sophisticated, with a subtle decay in duration.” The description of a fine wine? Actually, it’s the preferred sound of a Ford door closing, as described by customers. Even the sounds customers take for granted – from clicks to chimes – have been thoroughly researched.

Designed for attention



Some sounds in the car are designed specifically to be harsh to the human ear. For instance, the loud alert that sounds in cross-traffic alert technology is intended to warn drivers that immediate action should be taken to avoid a collision.

Hear and respond



The tone and volume of the chimes occupants hear in the car have been painstakingly composed to elicit the appropriate response. A softer sound, like a seat belt chime, is designed to deliver important, but not urgent, information.

