Technology Woes Continue to Drive Up Problems: J.D. Power Vehicle Dependability Study

Lexus Ranks Highest in Vehicle Dependability for Fifth Consecutive Year; General Motors Receives Eight Segment Awards; Toyota Motor Corporation Receives Six

TROY, Mich.: EMBARGOED until 10 a.m. EST February 24, 2016 — Problems with technology continue to affect vehicle reliability according to the J.D. Power 2016 U.S. Vehicle Dependability StudySM (VDS), released today. The number of problems with infotainment, navigation and in-vehicle communication systems—collectively known as audio, communication, entertainment and navigation or ACEN—has increased and now accounts for 20% of all customer-reported problems in the study. ACEN is now the most problematic area on most vehicles and is the cause of the industry’s 3% year-over-year decline in vehicle dependability.

“The increase in technology-related problems has two sources,” Renee Stephens, vice president of U.S. automotive at J.D. Power, noted. “Usability problems that customers reported during their first 90 days of ownership are still bothering them three years later in ever-higher numbers. At the same time, the penetration of these features has increased year over year.”

The problems most often reported by owners are Bluetooth pairing/connectivity and built-in voice recognition systems misinterpreting commands. Navigation system difficult to use and navigation system inaccurate are also among the 10 most frequently reported problems.

Building Trust in Technology
While automakers, suppliers and even the U.S. government are enthusiastically moving toward putting fully autonomous vehicles on the roads, consumers need to have confidence in the technologies currently in vehicles before they will be willing to take their hands off the wheel of self-driving cars.

“If you think about the technology problems from the study in the context of conversations around autonomous vehicles, the industry clearly has more work to do to secure the trust of consumers,” said Stephens. “Right now, if consumers can’t rely on their vehicle to connect to their smartphone, or have faith that their navigation system will route them to their destination, they’re certainly not yet ready to trust that autonomous technology will keep their vehicle out of the ditch.”

Expected reliability remains critical in today’s automotive market. More than 50% of owners cite expected reliability as one of the most influential reasons for choosing a specific make and model.1 At the same time, concerns about reliability have risen this year as a reason to avoid particular models.

“The decline in reliability coupled with a record number of vehicle recalls and safety-related complaints2 affect consumer confidence,” said Stephens. “Dependability has a direct impact on purchase decisions and brand loyalty.”

Among owners who experienced no problems with their vehicle, 55% purchased the same brand again. In contrast, only 41% of owners who experienced three or more problems with their vehicle stayed with the

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1 J.D. Power 2013 U.S. Initial Quality StudySM
2 National Highway Traffic Safety Administration
same brand for their next purchase. Additionally, only a third of owners who had to replace a component outside of normal wear items said they would definitely repurchase or lease the same brand again.

**Highest-Ranked Nameplates and Models**

**Lexus** ranks highest in vehicle dependability among all nameplates for a fifth consecutive year, with a score of 95 problems per 100 vehicles (PP100).

- **Porsche** (97 PP100) follows Lexus in the rankings, moving up from fifth in 2015.
- Following Porsche in the rankings are **Buick** (106 PP100), **Toyota** (113 PP100) and **GMC** (120 PP100).

**General Motors Company** receives eight segment awards and **Toyota Motor Corporation** six.

- GM models receiving an award include the Buick Encore; Buick LaCrosse; Buick Verano; Chevrolet Camaro; Chevrolet Equinox; Chevrolet Malibu; Chevrolet Silverado HD; and GMC Yukon.
- Toyota awardees include the Lexus ES; Lexus GS; Lexus GX; Toyota Prius v; Toyota Sienna; and Toyota Tundra.

Others models to receive segment awards are the Fiat 500; Honda Fit; Mercedes-Benz GLK-Class; MINI Cooper; MINI Coupe/Roadster; and Nissan Murano.

**Key Study Findings**

- The overall industry average is 152 PP100 this year, compared with 147 PP100 last year.
- Among owners who experienced a Bluetooth pairing/connectivity problem, 53% said the vehicle didn't find/recognize their mobile phone/device.
- Among owners who indicate having experienced a voice recognition problem, 67% say the problem was related to the system not recognizing/misinterpreting verbal commands.
- The number of engine/transmission problems decreases to 24 PP100 in 2016 from 26 PP100 in 2015.
- Seven of the top 10 problems are design-related. Design-related problems account for 39% of problems reported in the study (60 PP100), a 2-percentage-point increase from 2015.

The 2016 U.S. Vehicle Dependability Study is based on responses from 33,560 original owners of 2013 model-year vehicles after three years of ownership. The study was fielded from October through December 2015.

The study, now in its 27th year, examines problems experienced during the past 12 months by original owners of 2013 model-year vehicles. Overall dependability is determined by the number of problems experienced per 100 vehicles (PP100), with a lower score reflecting higher quality. The study covers 177 specific problem symptoms grouped into eight major vehicle categories.

Find more detailed information about the 2016 U.S. Vehicle Dependability Study (VDS), visit http://www.jdpower.com/resource/us-vehicle-dependability-study

Learn more about J.D. Power automotive studies at www.jdpower.com/cars/

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NOTE: Three charts follow.
### 2016 Nameplate VDS Ranking

**Problems per 100 Vehicles (PP100)**

<table>
<thead>
<tr>
<th>Make</th>
<th>Problems per 100 Vehicles (PP100)</th>
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<tbody>
<tr>
<td>Lexus</td>
<td>95</td>
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<tr>
<td>Porsche</td>
<td>97</td>
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<tr>
<td>Buick</td>
<td>106</td>
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<td>Toyota</td>
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<td>GMC</td>
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<td>Cadillac</td>
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<td>Volvo</td>
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<td>Industry Average</td>
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<td>Kia</td>
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<td>Ford</td>
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<tr>
<td>Dodge</td>
<td>208</td>
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</tbody>
</table>

*Note: Included in the study but not ranked due to small sample size is Jaguar.*

*Source: J.D. Power 2016 U.S. Vehicle Dependability StudySM (VDS)*

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Top Three Models per Segment

Car Segments

City Car*
Highest Ranked: Fiat 500
smart fortwo

Small Car
Highest Ranked: Honda Fit
Nissan Versa
Hyundai Accent

Compact Car
Highest Ranked: Buick Verano
Toyota Corolla
Toyota Prius

Compact Sporty Car
Highest Ranked: MINI Cooper
Highest Ranked: MINI Coupe/Roadster
Volkswagen GTI

Compact Premium Car
Highest Ranked: Lexus ES
BMW 1 Series
Acura ILX (tie)
Audi A4 (tie)

Midsize Car
Highest Ranked: Chevrolet Malibu
Hyundai Sonata
Toyota Camry

Midsize Sporty Car*
Highest Ranked: Chevrolet Camaro

Midsize Premium Car*
Highest Ranked: Lexus GS
Mercedes-Benz E-Class

Large Car
Highest Ranked: Buick LaCrosse
Nissan Maxima
Toyota Avalon

* No other model in this segment performs above segment average.
Note: There must be at least three models with 80% of market sales in any given award segment for an award to be presented. In the compact premium sporty car, midsize premium sporty car, and large premium car segments, these criteria were not met, thus no awards have been issued.

For more detailed findings on vehicle quality and dependability performance, visit www.jdpower.com/dependability

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No other model in this segment performs above segment average.  
Note: There must be at least three models with 80% of market sales in any given award segment for an award to be presented.  
In the midsize pickup and large premium SUV segments, these criteria were not met, thus no awards have been issued.  

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