

Dissatisfaction with Voice Commands Increases for Aftermarket Navigation Systems, J.D. Power FindsThe Alpine Big X Series Ranks Highest for Sixth Consecutive Year

TOKYO: 25 Oct. 2017 — Aftermarket navigation system users are more dissatisfied with the voice command function in 2017 than in 2016, according to the J.D. Power 2017 Japan Navigation Systems Customer Satisfaction Index StudySM—Aftermarket, released today.

Now in its 11th year, the study measures customer satisfaction with aftermarket in-dash vehicle navigation systems when used as in-vehicle information systems, including music and video player functions and telematics services in addition to search and guidance functions. Four factors are examined (listed in order of importance): navigation function (42%); infotainment equipment (21%); operation/ user interface (20%); and screen (17%). Satisfaction is calculated on a 1,000-point scale.

“Overall satisfaction with aftermarket navigation systems has slightly decreased from 2016, with the largest decline for accuracy of voice command recognition,” said **Yuji Sasaki, Director of the Automotive Division at J.D. Power, Tokyo**. “The voice recognition function would be a great advantage if it was user-friendly, but the low functional quality, which frustrates users, affects customer satisfaction. Improvement in functionality and performance is significantly important.”

Following are some key findings of the study:

- **Accuracy of voice command recognition has room for improvement:** The largest decrease in satisfaction is for accuracy of voice command recognition (5.20 in 2017 from 5.44 in 2016, on a 10-point scale), followed by fairness of map updates fee (4.85 from 5.01) and frequency of map updates (5.01 from 5.14).
- **Voice command destination search impacts satisfaction:** When searching for a destination by voice command, 26% of users experienced problems. Among these users, satisfaction with operation/ user interface averages 523 points, while satisfaction rises to 593 points among those who did not experience problems, a wide gap of 70 points. Even compared with the satisfaction of 555 points in 2016 among users who experienced problems, the satisfaction scores in 2017 are still low.
- **Smartphone connection for music is a big player in satisfaction:** Among users who connect an external device to the navigation system to play music, the number who connect their smartphone and play music stored in the smartphone increases to 38% in 2017 from 31% in 2016. However, 32% of those 38% experienced problems with the operation, higher than the overall average of 27% for all devices. Among users who experienced problems, satisfaction with infotainment equipment averages 517 points, which is 59 points lower than the 576 points among those who did not experience problems. This indicates that problems experienced when connecting a smartphone to the navigation system to play music adversely affects customer satisfaction.

Study Rankings

The **Alpine Big X Series** ranks highest, with a score of 591. The Alpine Big X Series performs well in all factors, including operation/ user interface and infotainment equipment in addition to the screen, thanks to its large display. **The Pioneer Cyber Navi Series** ranks second with 554 points, and the **Panasonic Strada RX Series** ranks third with 546 points.

The 2017 Japan Navigation Systems Customer Satisfaction Index Study—Aftermarket is based on responses from 2,207 vehicle owners who purchased an aftermarket navigation system from April 2015 through March 2017. The internet study was fielded in late July 2017.

Media Relations Contacts

Kumi Kitami; J.D. Power; Tokyo; 81-3-4550-8102; Kumi.katami@jdpower.co.jp

Geno Effler; J.D. Power; Costa Mesa, Calif., USA; 001-714-621-6224; media.relations@jdpa.com

About J.D. Power in the Asia Pacific Region

J.D. Power has offices in Tokyo, Singapore, Beijing, Shanghai, Malaysia and Bangkok that conduct customer satisfaction research and provide consulting services in the automotive, information technology and finance industries in the Asia Pacific region. Together, the six offices bring the language of customer satisfaction to consumers and businesses in Australia, China, India, Indonesia, Japan, Malaysia, Philippines, Taiwan, Thailand and Vietnam. J.D. Power is a portfolio company of XIO Group, a global alternative investments and private equity firm headquartered in London, and is led by its four founders: Athene Li, Joseph Pacini, Murphy Qiao and Carsten Geyer. Information regarding J.D. Power and its products can be accessed through the internet at japan.jdpower.com.

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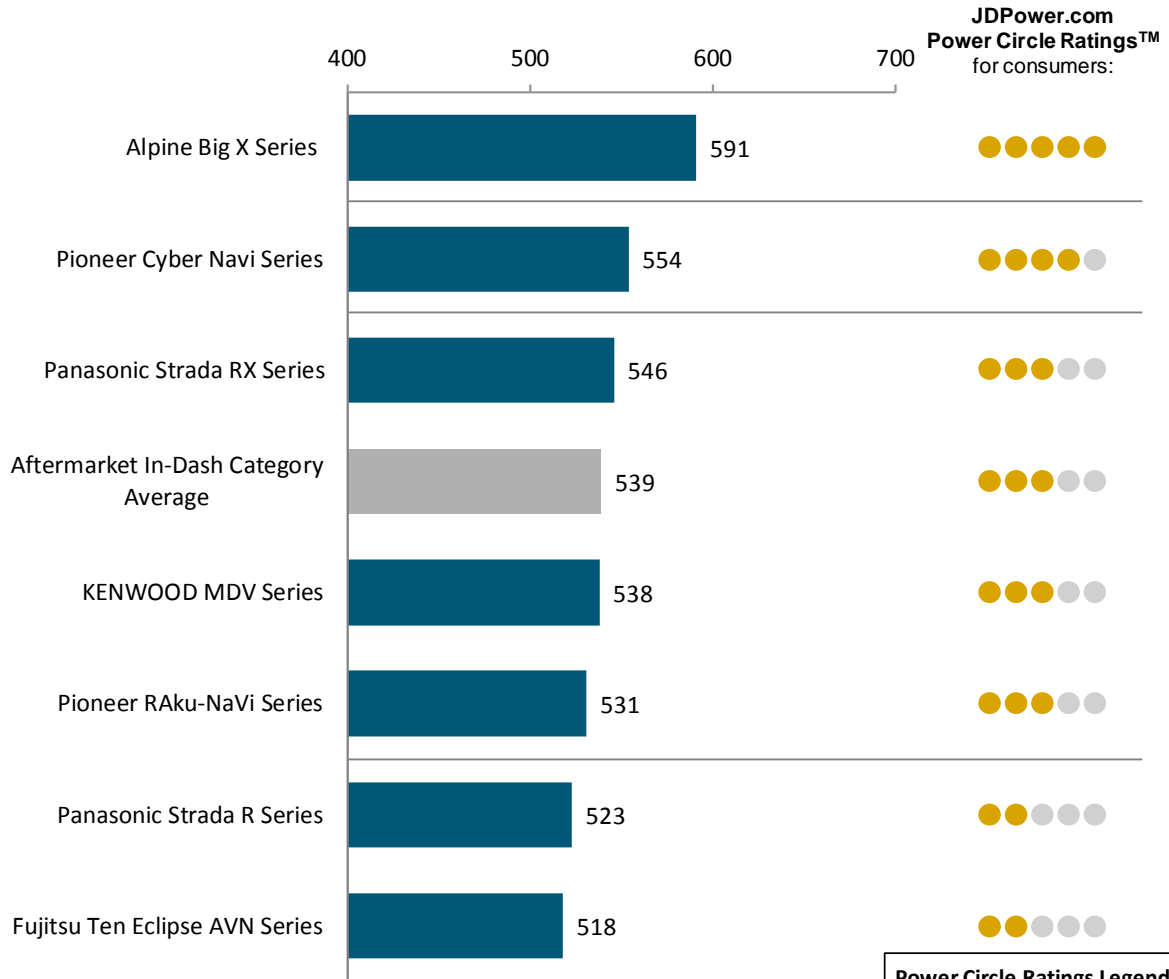
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NOTE: Two charts follow

J.D. Power 2017 Japan Navigation Systems Customer Satisfaction Index StudySM

Overall Satisfaction with Aftermarket In-Dash Navigation Systems

(Based on a 1,000-point scale)



Power Circle Ratings Legend

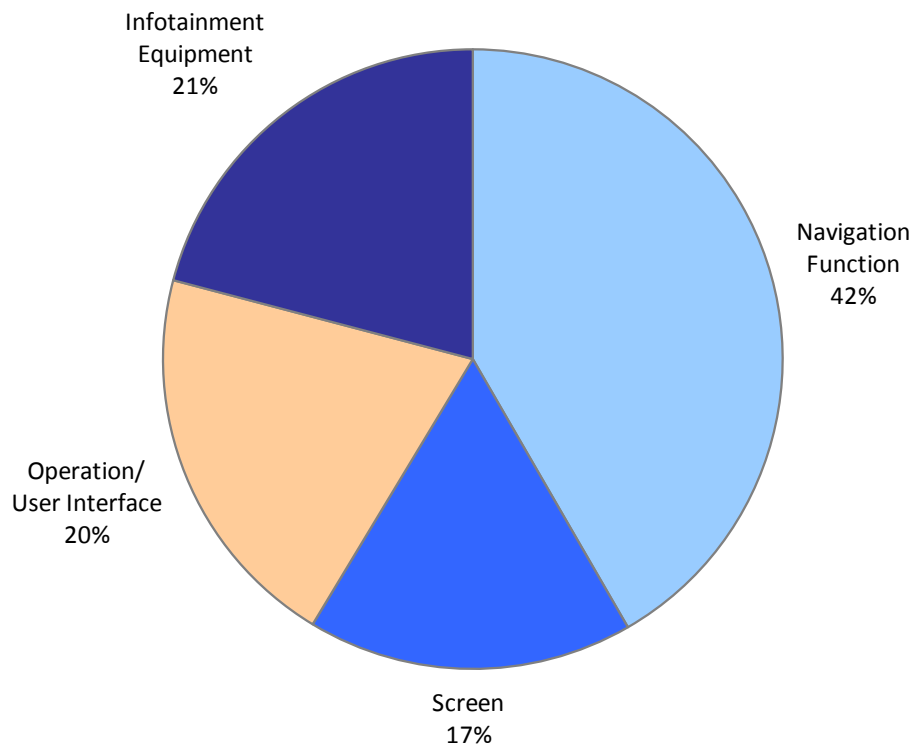
- Among the best
- Better than most
- About average
- The rest

Source: J.D. Power 2017 Japan Navigation Systems Customer Satisfaction Index StudySM

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2017 Japan Navigation Systems
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**Factors Contributing to Overall Satisfaction with
Aftermarket In-Dash Navigation Systems**



Note: Percentages may not total 100 due to rounding.

Source: J.D. Power 2017 Japan Navigation Systems Customer Satisfaction Index StudySM

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