## 

STUDY: Research on Passenger Car Driver Interactions with Driver Assistance Technologies

STERLING IRB ID: 7780-EMazzae

DATE OF IRB REVIEW: 02/03/20

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**Post-Drive Questionnaire – All Participants**

Today you drove a vehicle equipped with Advanced Driver Assistance System (ADAS) features. The following questions pertain to your experience driving the vehicle while using those features.

When completing these questions, please keep in mind the meaning of the following words. An ADAS feature is:

* “**Available**” when it is powered and ready to be engaged.
* “**Unavailable**” when the road conditions are not appropriate for function use or the function is not powered.
* “**Engaged**” if it is actively operating to help control the vehicle.
* “**Disengaging**” if it is about to stop helping to control the vehicle.

## Based on your experience during the test drive, please respond to the following statements by selecting the response that corresponds to your level of agreement or disagreement.

**These questions pertain to ADAS feature availability, engagement, and disengagement.**

The vehicle’s instrument panel visual symbols or messages clearly indicated whether the advanced driver assistance features were **available to engage** (i.e., activate).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

The vehicle’s instrument panel visual symbols or messages clearly indicated that the advanced driver assistance features were **engaged** (i.e., actively operating).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

It was always clear to me whether the advanced driver assistance features were **engaged or not engaged**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

The vehicle’s instrument panel visual and auditory indications clearly indicated when the advanced driver assistance features were **disengaging** and that I must resume manual control of driving the vehicle immediately.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

## Based on your experience during the test drive, please respond to the following statements by selecting the response that corresponds to your level of agreement or disagreement.

**These questions pertain to your understanding of how to use the advanced driver assistance features.**

The vehicle’s advanced driver assistance features were easy to **engage and disengage**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

When the advanced driver assistance features **disengaged**, I had adequate time to resume manual control of driving the vehicle.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither  Agree nor Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

It was difficult to learn how to use the advanced driver assistance features.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither  Agree nor Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

I often made mistakes engaging the advanced driver assistance features during the experimental drive.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

## Based on your experience during the test drive, please respond to the following statements by selecting the response that corresponds to your level of agreement or disagreement.

**These questions pertain to the longitudinal control performance of the advanced driver assistance feature on the vehicle you drove today.**

The **longitudinal control aspect** of the advanced driver assistance feature **performed well**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither  Agree nor Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

The **longitudinal control performance** of the advanced driver assistance feature **performed as I expected**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

**I was comfortable** allowing the advanced driver assistance feature to control the vehicle’s speed and following distance behind other vehicles in traffic.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither  Agree nor Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

**I felt safe** while using the advanced driver assistance feature to control the vehicle’s speed and following distance behind other vehicles in traffic.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither  Agree nor Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

**I trusted** the advanced driver assistance feature to control the vehicle’s speed and following distance behind other vehicles in traffic.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

## Based on your experience during the test drive, please respond to the following statements by selecting the response that corresponds to your level of agreement or disagreement.

These questions pertain to the **lateral control performance** of the advanced driver assistance feature on the **vehicle you drove today.**

The **lateral control** aspect of the advanced driver assistance feature **performed well**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

The **lateral control** aspect of the advanced driver assistance feature **performed as I expected**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

**I was comfortable** allowing the advanced driver assistance feature to control the vehicle’s lane position in traffic.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither  Agree nor Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

**I was comfortable** with the advanced driver assistance feature’s ability to control the vehicle’s lane

position on **straight road segments**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

**I was comfortable** with the advanced driver assistance feature’s ability to control the vehicle’s lane

position on **curved road segments**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

If you did not feel comfortable with the feature’s performance on either straight or curved road segments, please explain what made you uncomfortable:

**I felt safe** while the advanced driver assistance feature controlled the vehicle’s lane position in traffic.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither  Agree nor Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

**I trusted** the advanced driver assistance feature to safely control the vehicle’s lane position in traffic.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither Agree nor  Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

(If multiple ADAS features were present)

The advanced driver assistance features **performed well together**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Strongly Disagree | Moderately Disagree | Somewhat Disagree | Neither  Agree nor Disagree | Somewhat Agree | Moderately Agree | Strongly Agree |

      

## Based on your experience during the test drive, please answer the following question.

What is your general perception of the advanced driver assistance features that you experienced in your test drive today? Do you have any other thoughts or concerns about the functions?

Do you own a vehicle equipped with advanced driver assistance features?

|  |  |
| --- | --- |
| Yes | No |



If you were driving a vehicle equipped with a “self-driving” feature that could automatically steer to maintain the vehicle within the driving lane and follow a prescribed route, accelerate, and brake as needed with the push of a button, how likely would you be to do the following activities while that feature was active?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Neither |  |  |
| Very | Somewhat | Unlikely | Somewhat | Very |
| Unlikely | Unlikely | nor | Likely | Likely |
|  |  | Likely |  |  |
| Talk to a passenger |  |  |  |  |
| Talk on a mobile phone |  |  |  |  |
| Write and send text or e-mail messages |  |  |  |  |
| Read text or e-mail messages |  |  |  |  |
| Internet browsing |  |  |  |  |
| Social media (e.g., Facebook, Twitter) |  |  |  |  |
| Read printed material |  |  |  |  |
| Watch videos/movies |  |  |  |  |
| Work |  |  |  |  |
| Eat food |  |  |  |  |
| Stare out the window |  |  |  |  |
| Sleep |  |  |  |  |