

| | | |
|--|----------------|------------|
| Subject | | Market |
| Vehicle Drivability Complaint Questionnaire | | USA |
| Service Category | Section | |
| Engine/Hybrid System | Engine Control | |
| Applicability | | |
| RX, ES, GX, LS, UX, IS | | |

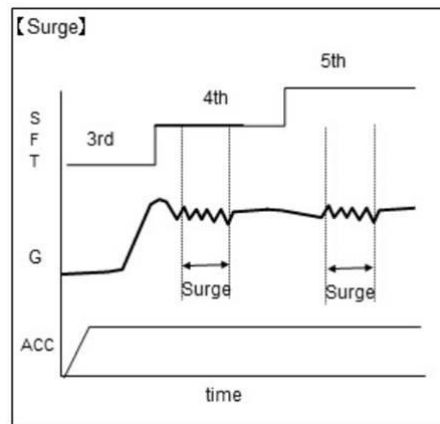
| APPLICABLE VEHICLES | | | |
|---------------------|-------|-----------|-------|
| 2018-2021 | IS350 | 2018-2021 | LS500 |
| 2019-2021 | UX200 | 2019-2021 | IS300 |
| 2018-2021 | GX460 | 2018-2021 | RX350 |
| 2018-2021 | ES350 | | |

CONDITION

The Lexus Quality group is looking to better understand our customers expectation regarding vehicle drivability. Specifically, we are looking at vehicle surge/hesitation condition (inconsistent acceleration) and would like to recover detailed customer voice and vehicle data. Refer to below surge/hesitation graph.

If you have a customer with this type of concern, and no other fault with the vehicle has been found, follow the instructions below.

If you are unclear if the customer is experiencing a surge/hesitation condition, continue to follow the instructions below.



RECOMMENDATIONS

Collect the following information and then contact TAS.

Dealer Provided:

Vehicle information

- Vehicle grade (Base, F-Sport)
- Mileage
- Tire condition
 - Brand
 - Size (e.g. 195/65 R15 91H)
 - Tread depth, equal tread depth
 - Air pressure when customer arrives at the dealer
- Aftermarket products (lift kit, wheels, non-OEM tires)
- Current EFI/ECT software/calibration number

Evaluation/duplication drive (If you cannot duplicate, request this information from the customer):

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RECOMMENDATIONS

- Road information where customer has the complaint (Street Name, location, smoothness, when traveling uphill or downhill, etc.)
- Elevation of testing area
- Weather condition of test (ambient air temp, rain, etc.)
- AC status (on/off, temperature, defroster, etc.)

Customer Provided Information

- **See questionnaire below and have the customer fill out** (Questionnaire can also be found under “Customer Interview Forms” on Service Lane --> Knowledge Center)

Data Recording:

During drive with the customer, take a vehicle snapshot using Techstream to capture **only** the following datalist parameters.

| PID Values | Units | | |
|------------------------------|--------|---|--------|
| Vehicle speed | MPH | Accelerator position | % |
| Engine speed | RPM | Open side malfunction | On/Off |
| Calculated load | % | Throttle request position | V |
| Mass air flow Sensor | gm/sec | Throttle sensor position | % |
| Atmospheric pressure | psi | Throttle position command | V |
| Coolant temperature | °F | Throttle position sensor open position No.1 | V |
| A/T oil temperature No.1 | °F | Output axis speed | rpm |
| Intake air temperature | °F | NT sensor speed | rpm |
| Ambient air temperature | °F | Shift SW status (P, R, N, S, D range) | On/Off |
| Engine run time | sec | Drive mode status | Normal |
| IG-On coolant temperature | °F | Power mode SW | On/Off |
| IG-On intake air temperature | °F | Lock up status | On/Off |
| Battery voltage | V | Shift status | 1-6 |
| | | Actual engine percent torque | % |

Mark (Flag) each instance of the customer complaint.

- For technician drive only (do **NOT** have customer perform) – during condition duplication, select neutral gear position and see if the drivability condition changes in any way. Note change if any. This will help determine if it is drivetrain or vehicle side related.

Once all items are complete (vehicle data, customer questionnaire, Techstream snapshot) **create a TAS case using the listed symptom codes**

- Service Category - Drivetrain
- Section - Automatic Transmission/Transaxle
- SubComponent - Shift Function
- Condition - Design/Less Than Expectation

Attach all documents and a technical review of the information will be conducted. Contact your field representative if there are any questions.

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RECOMMENDATIONS

Vehicle Drivability – Customer Questionnaire

1. Fuel

- Octane (is same octane used all the time?) _____
 - o If different octane is used, does the affect vehicle derivability? _____
 - o Are different brands of fuel used? _____
 - o Does this affect/change drivability? _____
 - o If yes to either, in what way(s)? _____
 - o Please provide most commonly used brand of fuel _____

2. Drive mode (D-range, Eco, S-Sport, manual shifting of automatic transmission)

- What drive mode is used when issue is felt? _____
 - o Does condition change or not occur if another drive mode is used? _____
 - o If so, what drive mode was used? _____
 - o In what way(s) does the condition change? _____

3. Occurrence

- When does the condition occur after startup? (immediately, after x minutes, startup has no affect)

- How long does this occurrence last? (short single instance, couple seconds, etc.)

- Speed when condition occurs? _____
- Is speed steady, accelerating or decelerating? _____



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LINK REFERENCES

This Tech Tip does not contain any link references