

Subject		Market	
<b>Vehicle Drivability Complaint Questionnaire</b>		<b>USA</b>	
Service Category	Section		
Engine/Hybrid System	Engine Control		
Applicability			
Tacoma Camry Sienna Highlander RAV4			

**APPLICABLE VEHICLES**

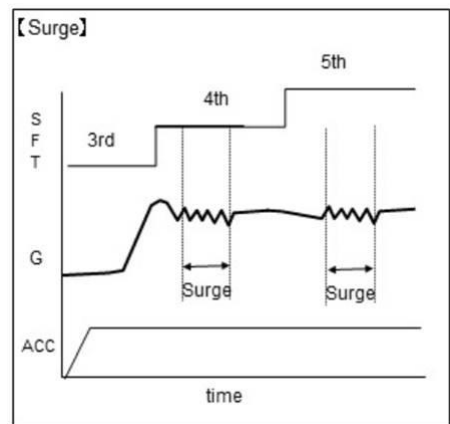
2018-2021	Highlander	2018-2021	Tacoma
2018-2021	Tundra	2018-2021	4Runner
2018-2020	Sienna	2018-2021	RAV4
2018-2021	Camry	2018-2021	Corolla
2018-2021	Sequoia	2018-2021	Avalon

**CONDITION**

The Toyota 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 the surge/hesitation graph below.

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 (XLE, Limited, TRD Pro, etc.)
- Mileage
- Tire condition
  - Brand
  - Size (e.g. 195/65 R15 91H)
  - Tread depth, equal tread depth
  - Air pressure when customer arrives at the dealer
- Payload (anything in the bed, any additional weight)
- Aftermarket products (lift kit, wheels, non-OEM tires)
- Current EFI/ECT software/calibration number

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**RECOMMENDATIONS**

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

- Road information where customer condition is duplicated (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.)
- If duplicated, confirm condition is the exact same to what the customer typically experiences. If any difference is felt (severity, duration etc.) please note.

**Customer Provided Information**

- See questionnaire below and have 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	%

Please 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

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**RECOMMENDATIONS**

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

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, s-range, ECT, 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? \_\_\_\_\_

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**RECOMMENDATIONS****3. Occurrence**

- Location/area where condition is commonly felt (Street Name, Intersecting roads, Road surface, etc.)

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

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

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- Speed when condition occurs? \_\_\_\_\_

- Is speed steady, accelerating or decelerating? \_\_\_\_\_

**LINK REFERENCES**

This Tech Tip does not contain any link references