TOYOTA
Technical Service Bulletin

Injection Mode Active Test Diagnostics

Service Category	Engine/Hybrid System	
Section	Engine Control	**Market** USA

Toyota Supports
ASE Certification

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2019 - 2022	Avalon, Corolla Hatchback, RAV4	
2018 - 2022	Camry	
2020 - 2022	Corolla	
2017 - 2022	Highlander	
2017 - 2020	Sienna	
2016 - 2022	Tacoma	

REVISION NOTICE

May 27, 2022 Rev1:

- **Applicability has been updated to include 2022 model year Avalon, Camry, Corolla, Corolla Hatchback, Highlander, RAV4, and Tacoma vehicles.**
- **Applicability has been updated to remove 2021 model year Sienna vehicles.**
- **The Test Procedure section has been updated.**

Any previous printed versions of this bulletin should be discarded.

Injection Mode Active Test Diagnostics

Introduction

This Service Bulletin provides a procedure to properly perform the Techstream "Control the Injection Mode" active test in some 2016 – 2022 model year Toyota vehicles equipped with an FKS engine.

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
N/A	Not Applicable to Warranty	–	–	–	–

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream ADVi*	ADE	TSADVUNIT	1
Techstream 2.0		TS2UNIT	
Techstream Lite		TSLITEPDLR01	
Techstream Lite (Green Cable)		TSLP2DLR01	

*Essential SST.

> **NOTE**
> - Only ONE of the Techstream units listed above is required.
> - Software version 17.00.020 or later is required.
> - Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

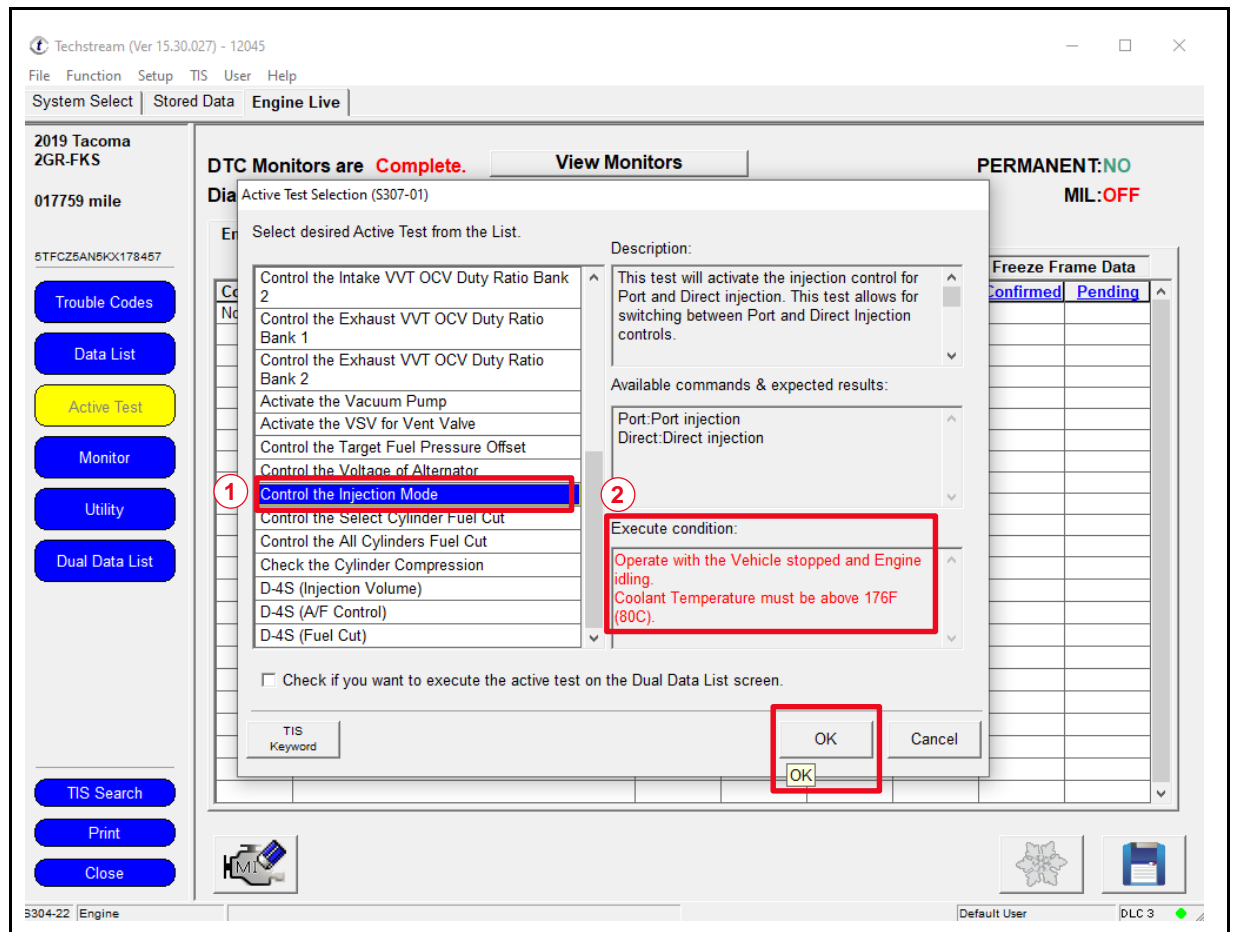## Injection Mode Active Test Diagnostics

Test Procedure

1. Start the engine and turn OFF the A/C.

2. Connect Techstream to the vehicle and navigate to *Engine Active Test – Control the Injection Mode.*

3. Verify the execute conditions are met to perform the active test.

> **NOTICE**
>
> **The vehicle MUST be stopped with the engine idling, and the coolant temperature MUST be above 176°F (80°C).**
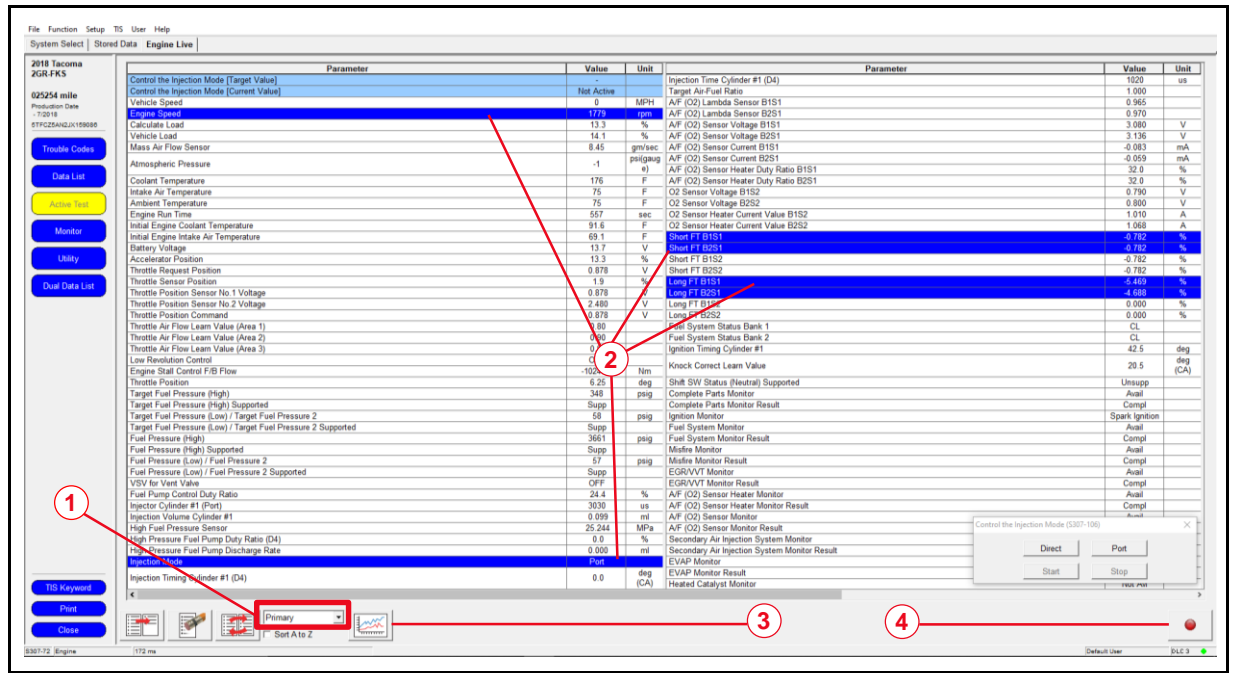
4. Select OK.

Figure 1.

| 1 | Active Test Selection |
| 2 | Execute Conditions |

Injection Mode Active Test Diagnostics

Test Procedure (continued)

5. Select the criteria desired for monitoring (see Figure 2).
   A. Select Primary as the data set to be displayed.
   B. Select the parameters.
      (1) Engine speed
      (2) Injection Mode
      (3) Short FT(s)
      (4) Long FT(s)
   C. Select the graph button.

Figure 2. Example of Selecting Criteria for Monitoring
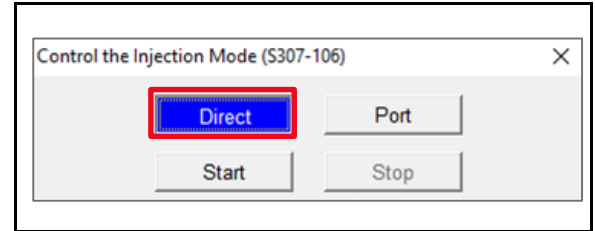

1	Data Set to Be Displayed	3	Graph Button
2	Parameters	4	Record Button

6. Press the record button to start recording.

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Test Procedure (continued)

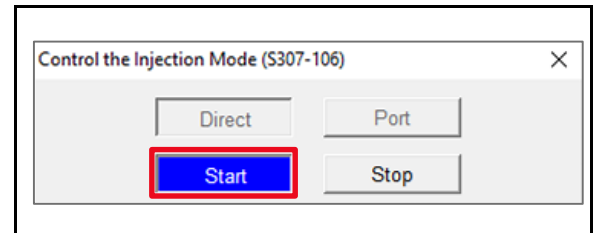7. Select Direct on the Control the Injection Mode window.

Figure 3.

8. Raise the engine to 2,000 RPM.

9. Press Start.

Figure 4.

10. Keep the engine RPM at 2,000 for 30 seconds.
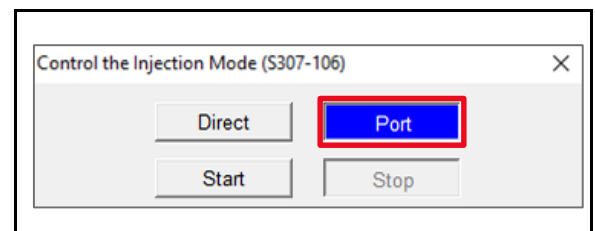
11. Idle the engine for one minute.

12. Click Stop.

Figure 5.

13. Select Port on the Control the Injection Mode window.

Figure 6.

Injection Mode Active Test Diagnostics

Test Procedure (continued)

14. Raise the engine to 2,000 RPM.

15. Press Start.

Figure 7.

16. Keep the engine RPM at 2,000 for
    30 seconds.

17. Idle the engine for one minute.
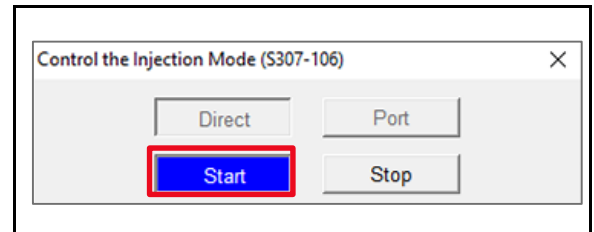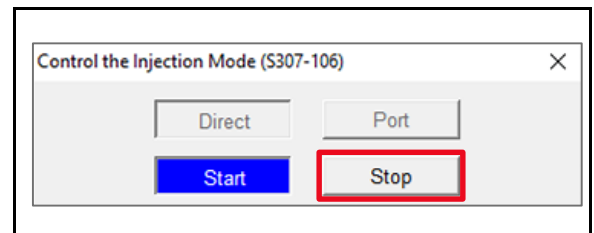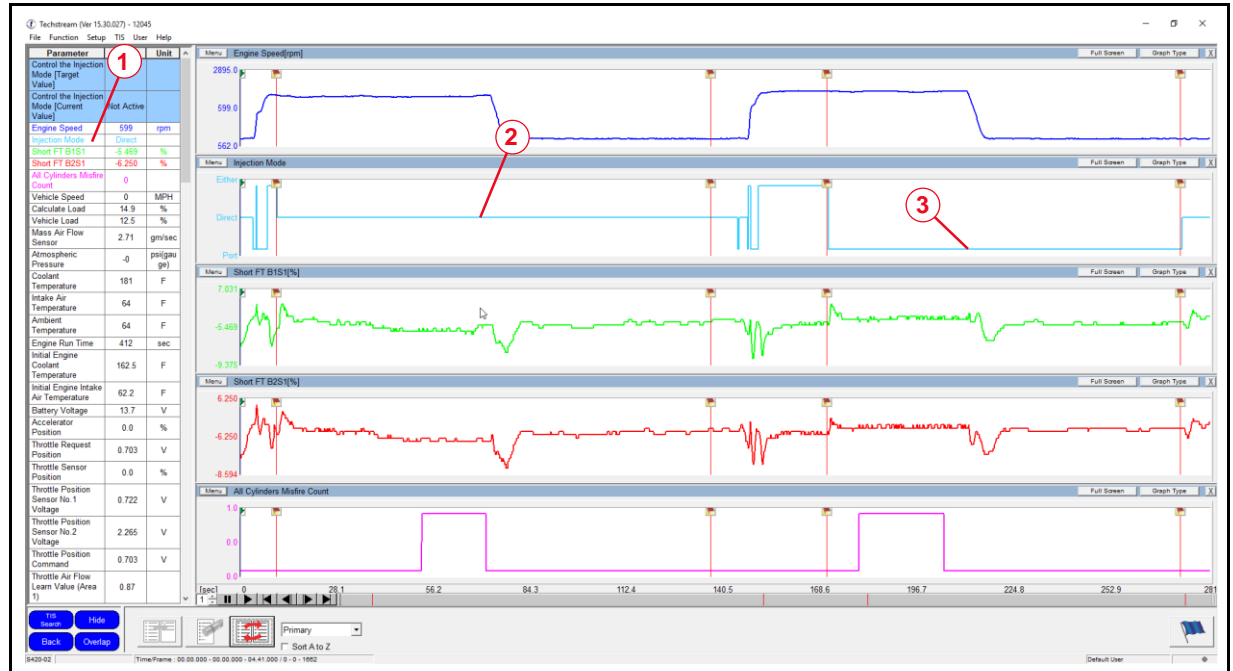
18. Click Stop.

Figure 8.

19. Click the record button to stop recording.

Injection Mode Active Test Diagnostics

Test Procedure (continued)

Figure 9. Primary Data List Graph Snapshot

1	Injection Mode Parameter	2	Direct Injection Mode Confirmation
3	Port Injection Mode Confirmation		

20. Utilizing the primary data list graph snapshot, confirm the switch occurred when commanded with the injection mode parameter.

Did the vehicle respond to the selected modes (direct and port) during the active test?

- **YES —** The active test is complete.
- **NO —** Retake the active test, return to step 2.

> **NOTE**
>
> If the active test is used multiple times without using this procedure to raise engine RPM, it may be necessary to reset learning values for fuel trim and air to fuel ratio before returning the vehicle to the customer.