

ECU Security Key Writing

Service Category Power Source/Network

Section Networking

Market USA

Toyota Supports
ASE Certification 

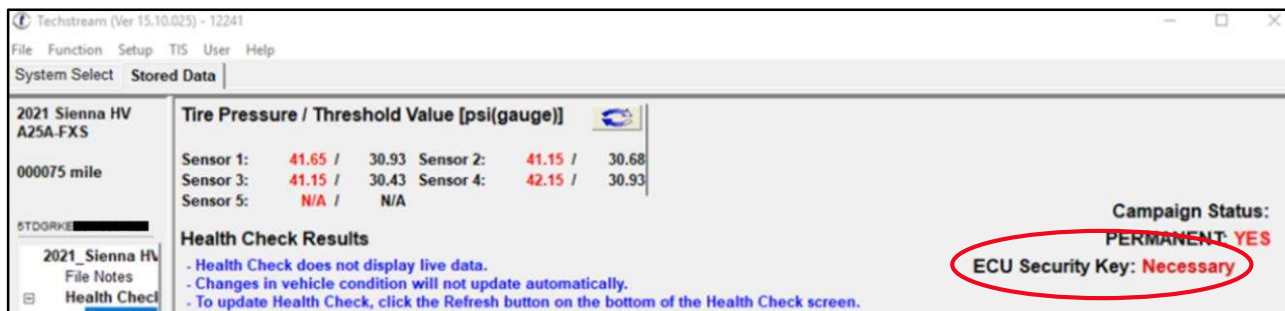
Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2021	RAV4 Prime, Sienna HV, Venza HV	

Introduction

When certain vehicle ECUs are replaced, the ECU security key must be written in order for that ECU to communicate on the vehicle network. The Techstream Software Health Check Results screen has been enhanced to help identify if a replacement ECU requires an ECU security key. Follow the procedures in this bulletin to write the ECU security key to the replacement ECU.

Figure 1.



Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
N/A	Not Applicable to Warranty	—	—	—	—

ECU Security Key Writing

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 15.20.016 or later is required.
- Additional SSTs may be ordered by calling 1-800-933-8335.

Procedures

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ECU Security Key Writing

Confirm ECU Security Key Writing Requirement

After ECU replacement, it is important to confirm if ECU security key writing is necessary. There are two methods available to confirm if the ECU security key writing function is required within the Techstream software: performing a Health Check and using the ECU Security Key button.

Health Check

Performing a Health Check will confirm if ECU security key writing is needed. The Techstream Health Check Results screen has been enhanced to include an ECU security key indicator. The ECU security key indicator will display “Necessary” when an ECU security key needs to be written and “-” when ECU security key writing is NOT required.

Figure 2.

Techstream (Ver 15.10.025) - 12241

File Function Setup TIS User Help

System Select Stored Data

2021 Sienna HV
A25A-FXS

000075 mile

5TDGRKEC

2021_Sienna HV
File Notes
Health Check
Data 1-4/5
Error Report

Tire Pressure / Threshold Value [psi(gauge)]

Sensor 1: 41.65 / 30.93 Sensor 2: 41.15 / 30.68
Sensor 3: 41.15 / 30.43 Sensor 4: 42.15 / 30.93
Sensor 5: N/A / N/A

Health Check Results

- Health Check does not display live data.
- Changes in vehicle condition will not update automatically.
- To update Health Check, click the Refresh button on the bottom of the Health Check screen.

Campaign Status:
PERMANENT: YES

ECU Security Key: Necessary

Enhanced | Generic |

DTC Related Information

System	Monitor Status	DTC	Curr Conf	Pend	Hist	Test Failed	SB	RoB	Calibration	Update
Engine	Inc								896630857001	No
Radar Cruise2	-								897BF0101000	No
Tire Pressure Monitor	-								8821F3301400	No
Front Radar Sensor	-								-	
Pre-Collision System	-								-	
Smart Key	-								-	
Main Body	-								8922F0801000	No
Power Source Control	-								-	
Blind Spot Monitor "B"	-								8816F0802101	No
Blind Spot Monitor "A"	-								8816F0802102	No
Headlight Control	-								8994F4503002	No
Power Distribution Box	-								8273F0801000	No
Motor Generator	-								89884450201A	No
									89884450100A	No
Hybrid Control	-								899830801000	No
									899850801000	No
Radar Cruise1	-								-	
Rear Camera	-								867B03C269	No
									867B13C007	No

Sort

Expand>>

TIS Search

Print

Back

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ECU

DTC

Default User

DLC 3

ECU Security Key Writing

Confirm ECU Security Key Writing Requirement (continued)

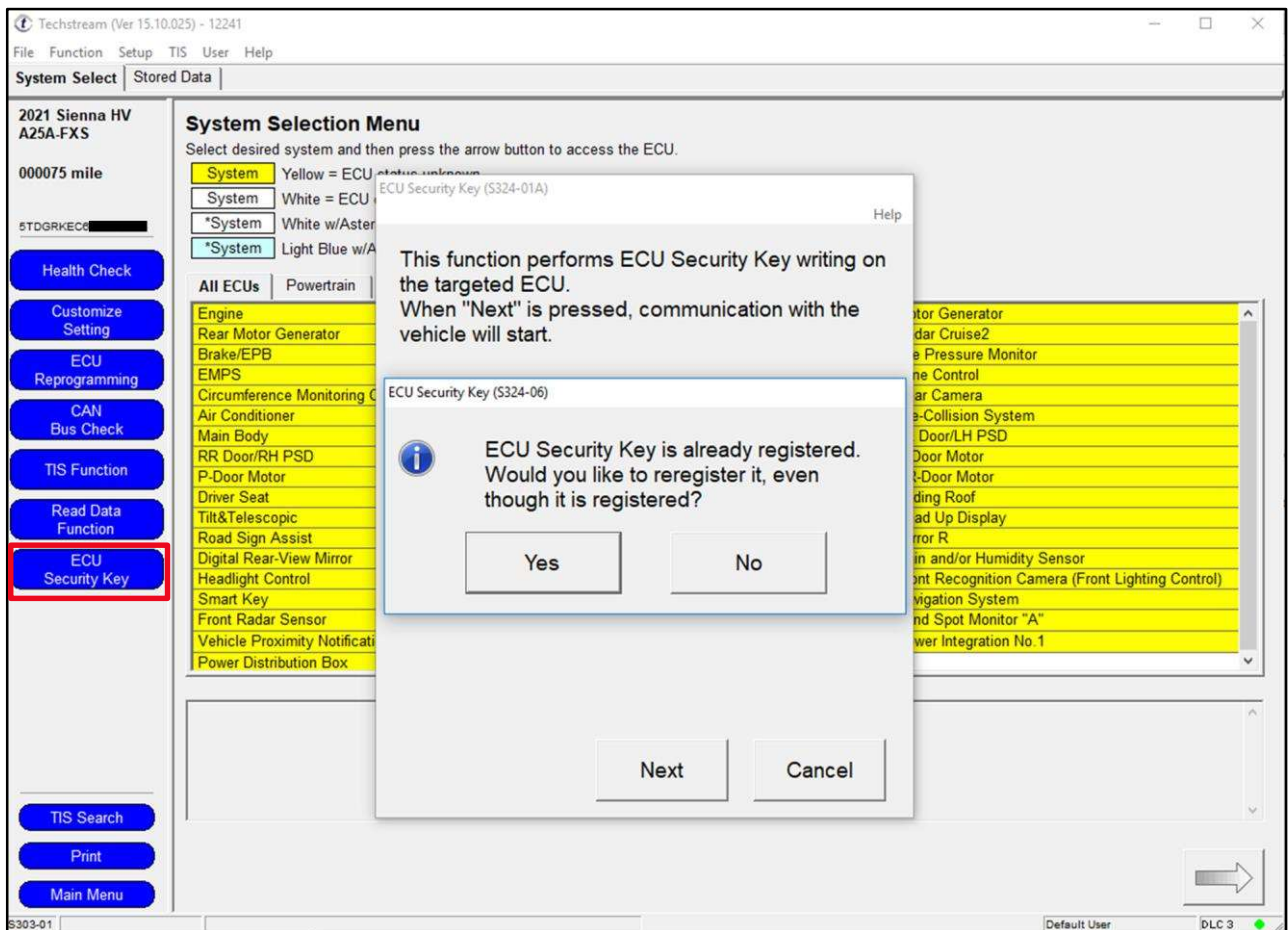
ECU Security Key Button

Selecting the ECU Security Key Button is another method to confirm if ECU security key writing is required. From the System Select screen the ECU Security Key button is located on the left-hand side of the function menu.

NOTE

Selecting this option can allow ECU security key writing even if it is not required. If the ECU security key does NOT need to be written, a message will appear stating "ECU Security Key is already registered."

Figure 3.



ECU Security Key Writing

ECU Security Key Writing Process

NOTE

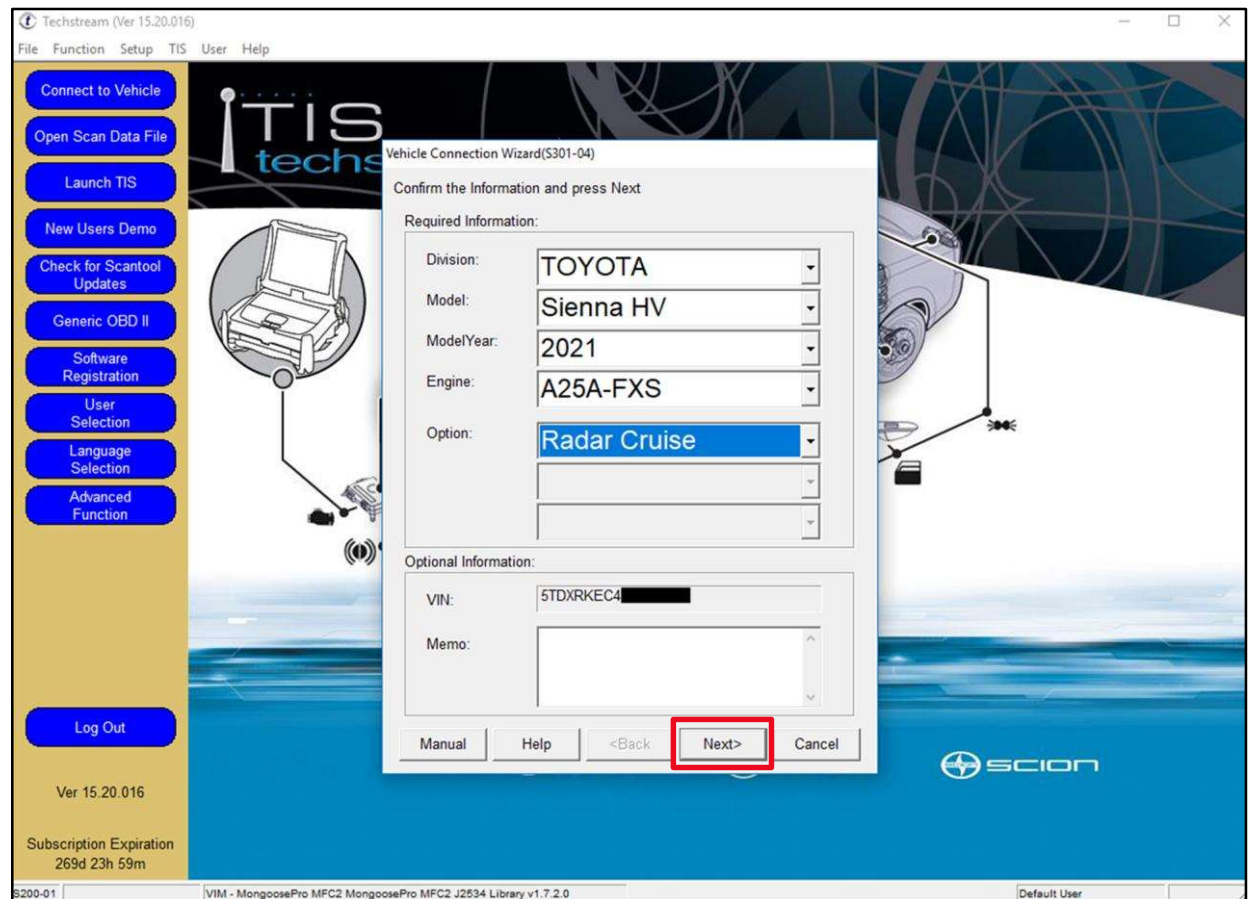
The process outlined in this section will use the Health Check Result screen to confirm if ECU security key writing is required.

1. Connect Techstream to the vehicle and press Next.

NOTE

In some instances, automatic vehicle detection may not be available due to specific ECU replacement. If the vehicle information does NOT automatically populate, manually select the appropriate vehicle information.

Figure 4.



ECU Security Key Writing

ECU Security Key Writing Process (continued)

2. Perform a Health Check.

If the ECU Security Key indicator in the upper-right corner of the Health Check screen displays “Necessary”, press the ECU key button, located on the bottom of the screen.

Figure 5.

2021 Sienna HV
A25A-FXS
000075 mile

Tire Pressure / Threshold Value [psi(gauge)]

Sensor	Value	Threshold
Sensor 1:	41.65	30.93
Sensor 2:	41.15	30.68
Sensor 3:	41.15	30.43
Sensor 4:	42.15	30.93
Sensor 5:	N/A	N/A

Health Check Results

- Health Check does not display live data.
- Changes in vehicle condition will not update automatically.
- To update Health Check, click the Refresh button on the bottom of the Health Check screen.

Campaign Status: PERMANENT: YES

ECU Security Key: **Necessary**

System	Monitor Status	DTC	Cur Conf	Pend	Hist	Test Failed	SB	RoB	Calibration	Update
Engine	Inc								896630857001	No
Radar Cruise2	-								-	
Tire Pressure Monitor	-								897BF0101000	No
Front Radar Sensor	-								8821F3301400	No
Pre-Collision System	-								-	
Smart Key	-								-	
Main Body	-								-	
Power Source Control	-								8922F0801000	No
Blind Spot Monitor "B"	-								8816F0802101	No
Blind Spot Monitor "A"	-								8816F0802102	No
Headlight Control	-								8994F4503002	No
Power Distribution Box	-								8273F0801000	No
Motor Generator	-								89884450201A	No
									89884450100A	No
Hybrid Control	-								899830801000	No
									899850801000	No
Radar Cruise1	-								-	
Rear Camera	-								867B03C269	No
									867B13C007	No

ECU

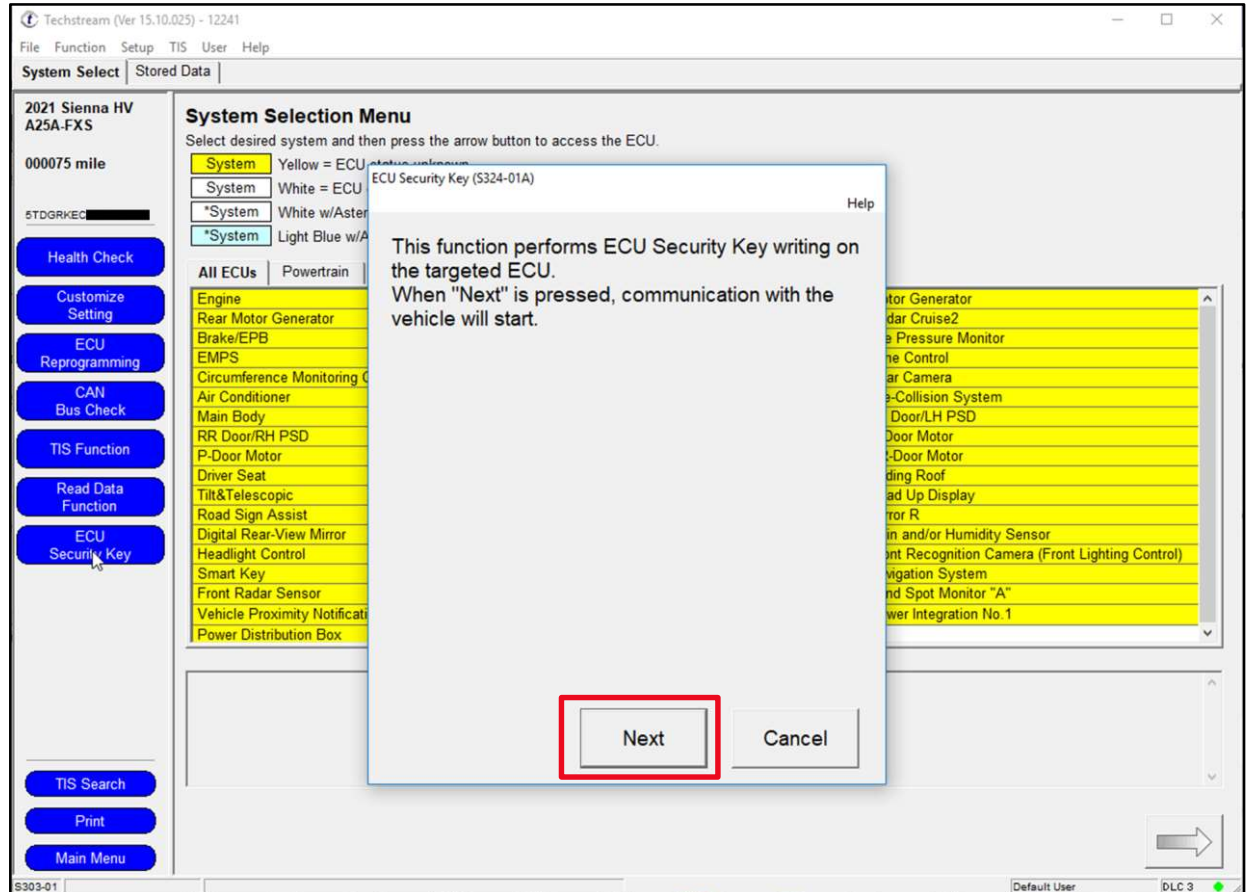
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ECU Security Key Writing

ECU Security Key Writing Process (continued)

3. Select Next.

Figure 6.



4. Techstream will read the vehicle information and open TIS to download the ECU security key. Input your TIS login credentials and select Login.

Figure 7.



ECU Security Key Writing

ECU Security Key Writing Process (continued)

5. Select Send.

Figure 8.

ECU Security Key

User ID: Technician 1
 Technician Name: Technician 1
 Distributor Code: 11111
 Distributor Name: TMNA
 Dealer Code: 12345
 Dealer Name: Toyota
 Vehicle VIN: 12345678912345678
 Software ID: 123abc123abc123abc123abc123abc123abc123abc

Send

6. After pressing Send, TIS will automatically send the ECU security key to Techstream. Return to Techstream and wait for the writing process to complete.

Figure 9.

Techstream (Ver 15.10.025) - 12241

File Function Setup TIS User Help

System Select | Stored Data

2021 Sienna HV
 A25A-FXS
 000075 mile
 5TDGRKEC

Health Check
 Customize Setting
 ECU Reprogramming
 CAN Bus Check
 TIS Function
 Read Data Function
 ECU Security Key

TIS Search
 Print
 Main Menu

System Selection Menu
 Select desired system and then press the arrow button to access the ECU.

System Yellow = ECU status unknown.
 System White = ECU communication OK.
 *System White w/Asterisk = ECU not supported or not responding.
 *System Light Blue w/Asterisk = ECU communication OK in past times but not responding now.

All ECUs Powertrain ECU Security Key (S324-10)

Writing Process 1/ 5

System 9/ 11

Engine
 Rear Motor Generator
 Brake/EPB
 EMPS
 Circumference Monitoring C
 Air Conditioner
 Main Body
 RR Door/RH PSD
 P-Door Motor
 Driver Seat
 Tilt&Telescopic
 Road Sign Assist
 Digital Rear-View Mirror
 Headlight Control
 Smart Key
 Front Radar Sensor
 Vehicle Proximity Notificatio
 Power Distribution Box

Motor Generator
 Radar Cruise2
 re Pressure Monitor
 Lane Control
 Rear Camera
 re-Collision System
 L Door/LH PSD
 -Door Motor
 R-Door Motor
 Sliding Roof
 Head Up Display
 Mirror R
 Rain and/or Humidity Sensor
 Front Recognition Camera (Front Lighting Control)
 Navigation System
 Blind Spot Monitor "A"
 Power Integration No.1

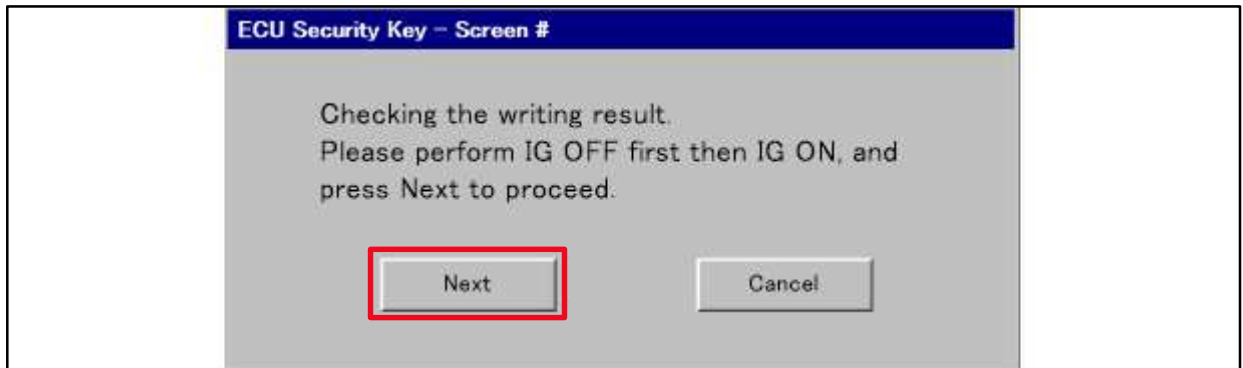
S303-01 Default User DLC 3

ECU Security Key Writing

ECU Security Key Writing Process (continued)

7. Cycle the ignition to IG-OFF, then IG-ON. Select Next.

Figure 10.



8. Select Ok.

Figure 11.



9. Confirm the ECU security key has been properly written by performing a Health Check and confirming the ECU security key indicator shows "-". Then, clear ALL DTCs.

Figure 12.



NOTE

The ECU security key indicator will show "Necessary" if the security key was NOT written properly. If NOT written properly return to step 2.