

# ECU Security Key Writing

**Service Category** Power Source/Network

**Section** Networking

**Market** USA

Toyota Supports ASE Certification

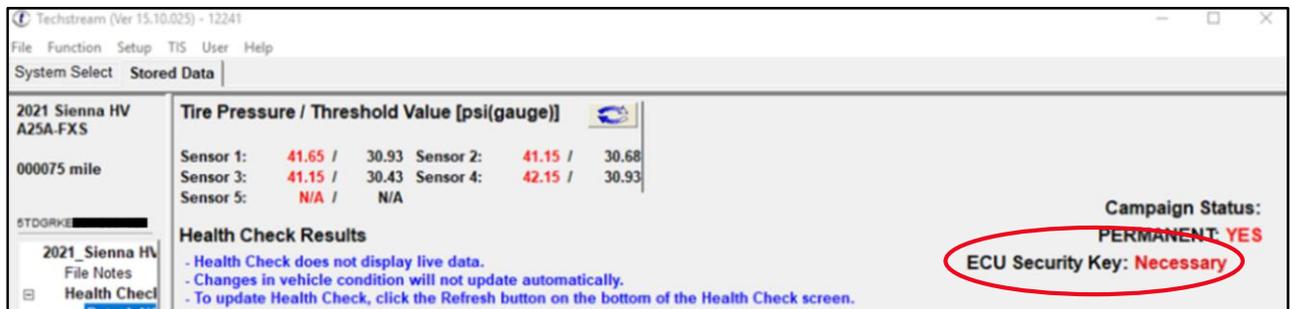
## Applicability

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

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### 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.

2021 Sienna HV  
A25A-FXS  
000075 mile

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**

System	Monitor Status	DTC	DTC Related Information					SB	RoB	Calibration	Update
			Curr Conf	Pend	Hist	Test Failed					
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	
Hybrid Control	-							●	89884450100A	No	
Radar Cruise1	-							●	899830801000	No	
Rear Camera	-							●	899850801000	No	
								●	867B03C269	No	
								●	867B13C007	No	

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## ECU Security Key Writing

### Confirm ECU Security Key Writing Requirement (continued)

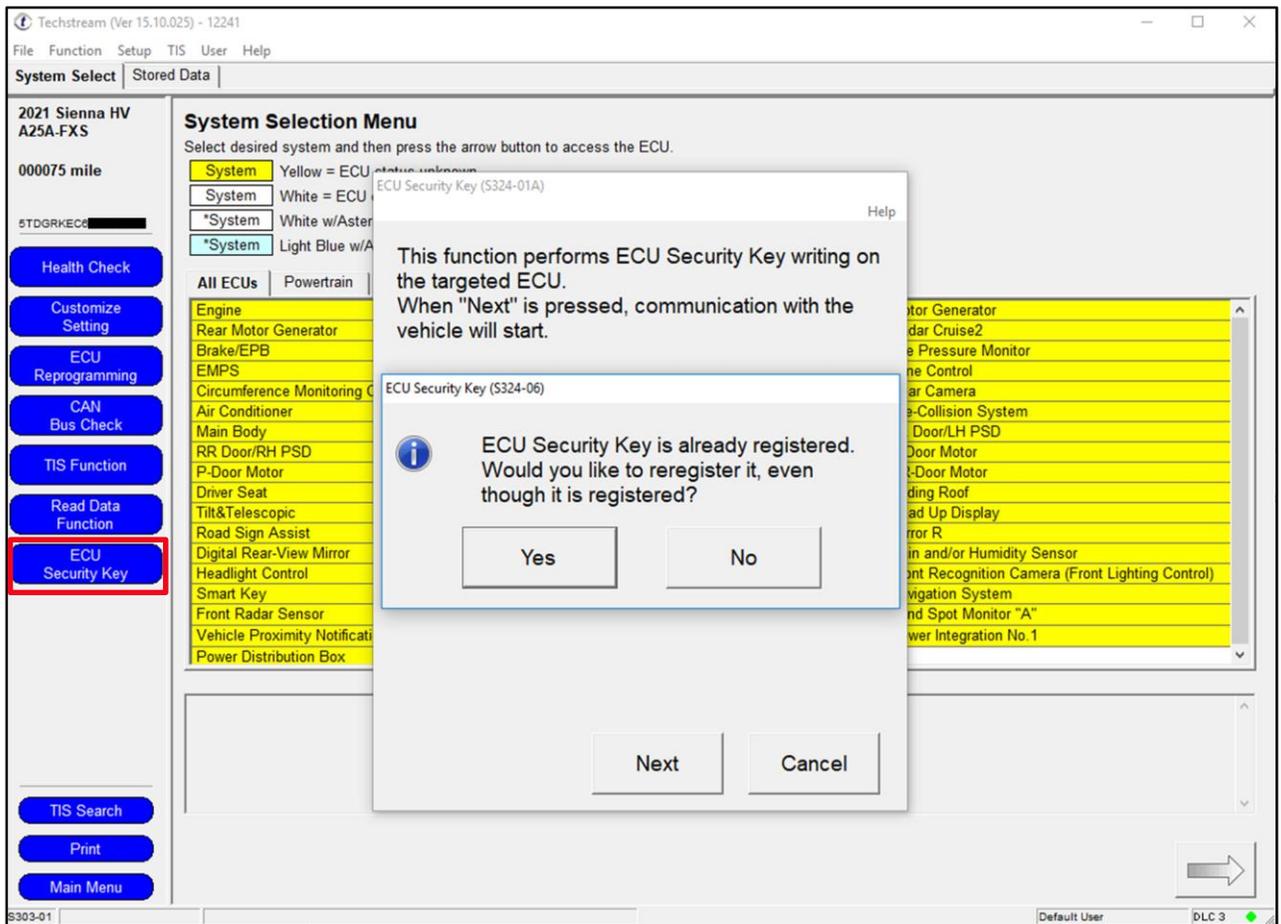
#### ECU Security Key Button

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**

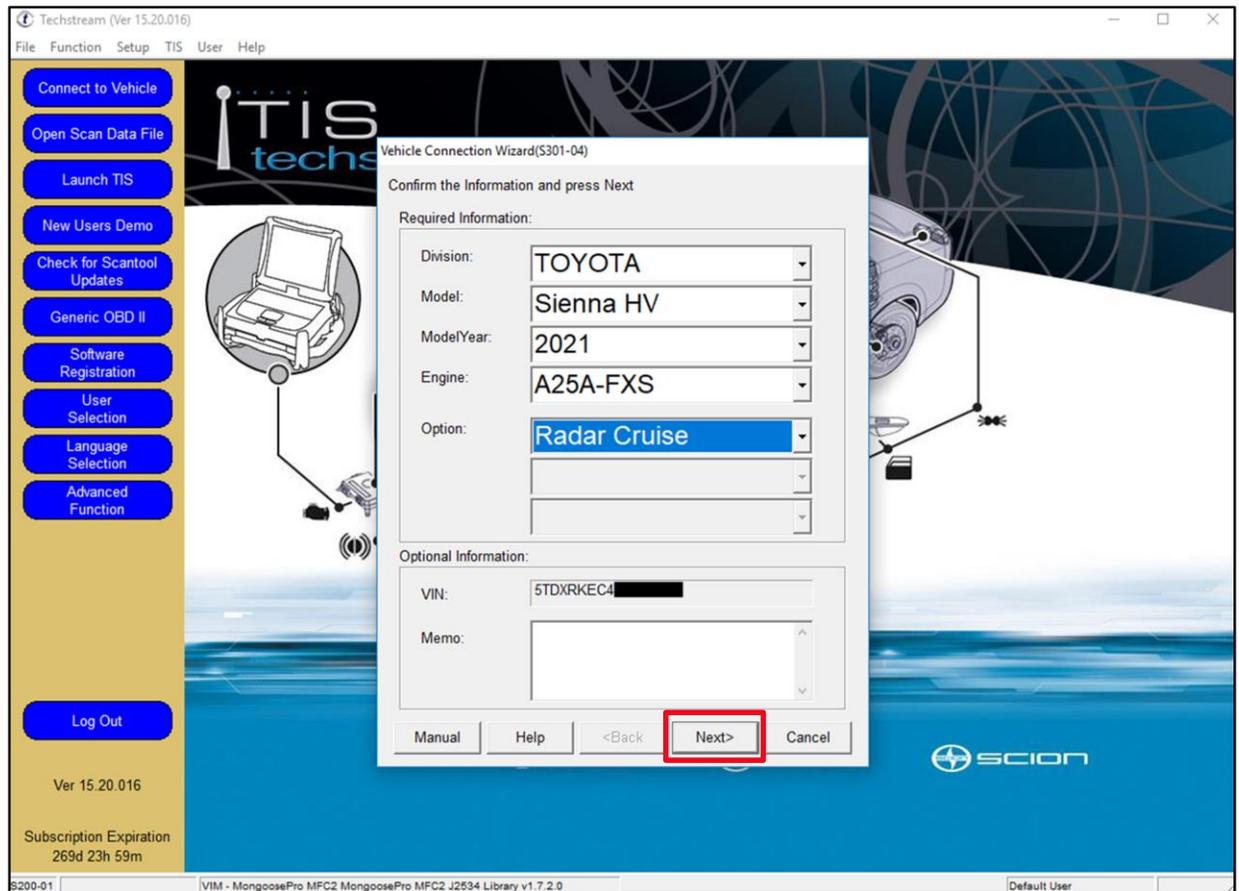
The process outlined in this section will use the Health Check Result screen to confirm if ECU security key writing is required.

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.

Techstream (Ver 15.10.025) - 12241

File Function Setup TIS User Help

System Select Stored Data

2021 Sienna HV  
A25A-FXS

000075 mile

STDRKX

2021\_Sienna HV  
File Notes  
Health Check  
Data 1-4/1  
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	-							●	-		
Tire Pressure Monitor	-							●	897BF0101000	No	
Front Radar Sensor	-							●	8821F3301400	No	
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 HMI

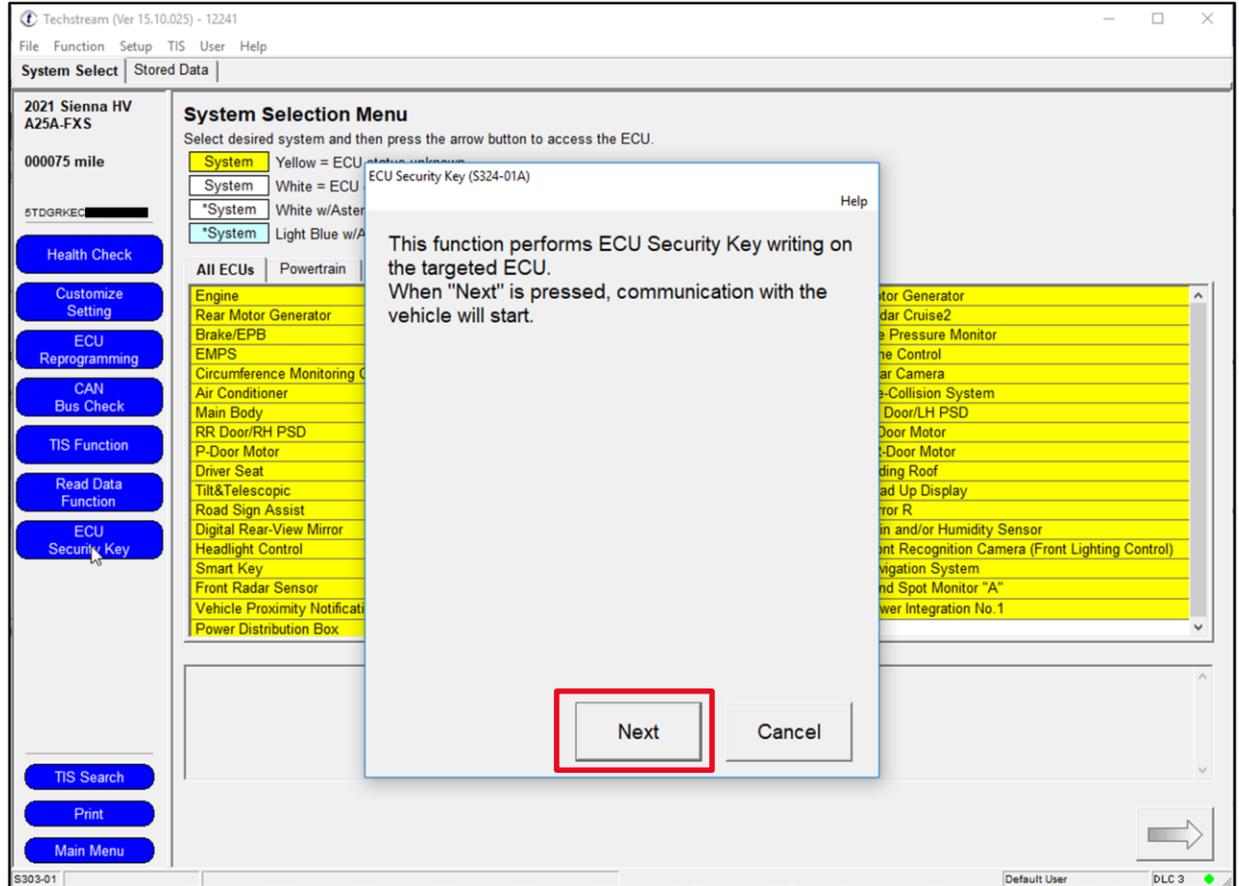
Default User DLC 3

# 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.

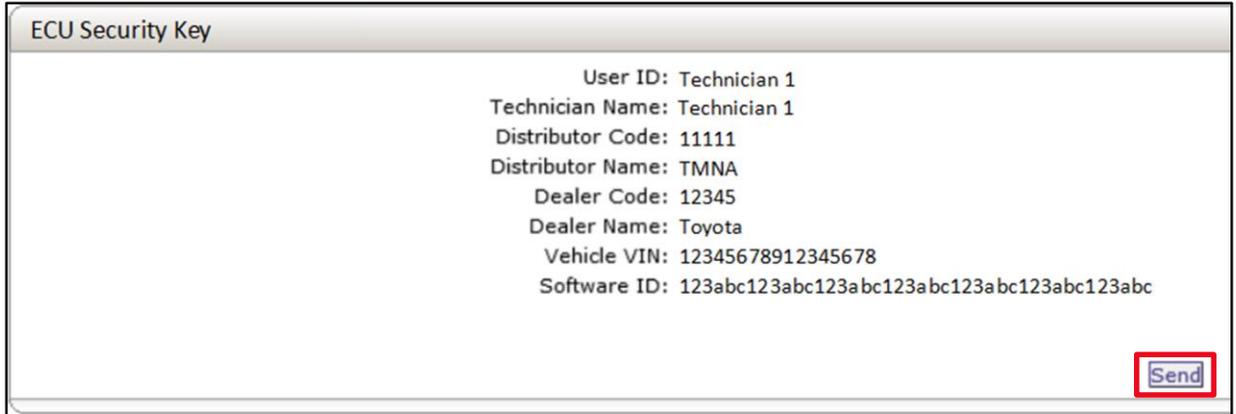


# ECU Security Key Writing

## ECU Security Key Writing Process (continued)

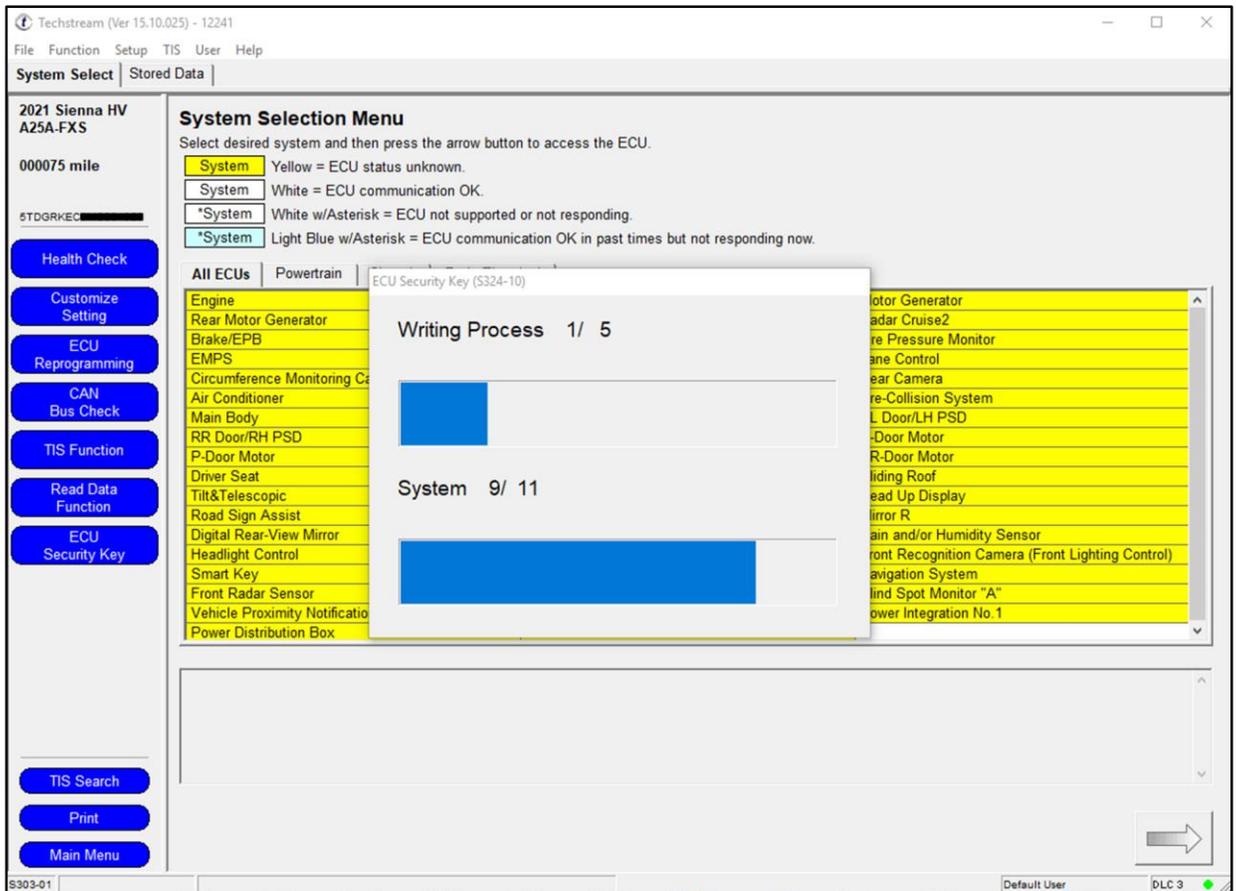
5. Select Send.

**Figure 8.**



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.**

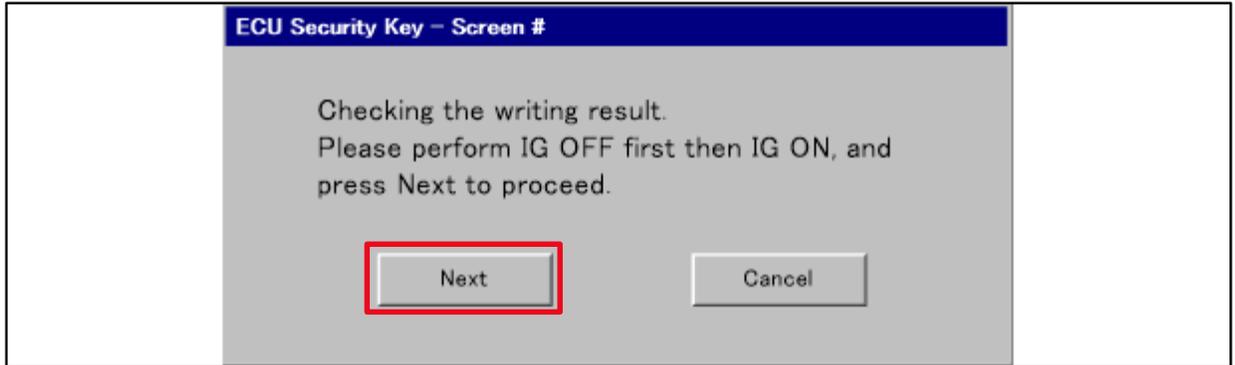


## ECU Security Key Writing

### ECU Security Key Writing Process (continued)

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

Figure 10.



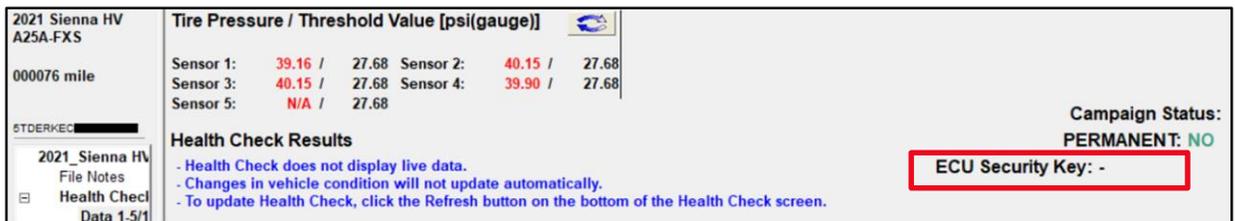
- Select Ok.

Figure 11.



- 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.