

Volvo Anti-theft Operation Guidelines-Smart Keys-Type 2

List of applicable models

Make	Vehicle	Year	Key Type
VOLVO	S60	2019-2021	Smart Key
VOLVO	S60 Hybrid	2018-2021	Smart Key
VOLVO	S90	2016-2021	Smart Key
VOLVO	S90 Hybrid	2019-2021	Smart Key
VOLVO	V60	2019-2021	Smart Key
VOLVO	V90	2017-2021	Smart Key
VOLVO	XC40	2018-2021	Smart Key
VOLVO	XC40 BEV	2021	Smart Key
VOLVO	XC60	2018-2021	Smart Key
VOLVO	XC60 Hybrid	2018-2021	Smart Key
VOLVO	XC90	2016-2021	Smart Key
VOLVO	XC90 Hybrid	2016-2021	Smart Key

Anti-theft conditions and requirements

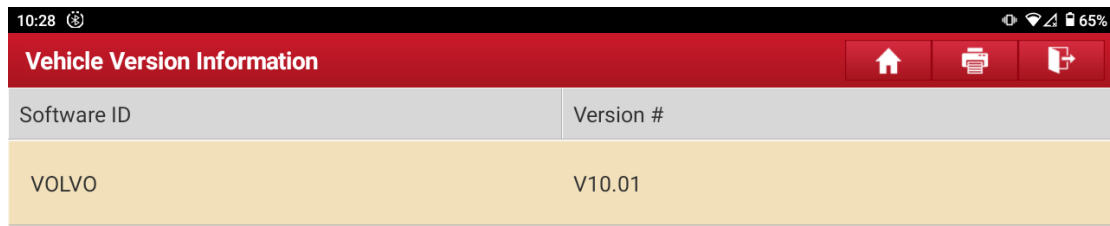
1. Launch IMMO PRO/IMMO PAD (professional version)
2. As for the compliance smart keys used for anti-theft matching, it is recommended to use the original factory key, because some secondary factory keys may have no intelligence after matching.

Anti-theft operation process

This operation process demonstration takes Volvo 2020 XC90 smart key as an example.

1. Vehicle series entry

Select [Volvo] -> [Automatic Scan] -> [XC90] -> [2016-2021] -> [Smart key](See Figure 1, Figure 2, Figure 3, Figure 4, Figure 5, Figure 6 and Figure 7 for the process steps)



Vehicle Version Information		Home	Print	Share
Software ID	Version #			
VOLVO	V10.01			

Volvo Anti-theft Diagnostic Software V10.01

Software Introduction

Software Summary

The Software Supports The Functions Such As Anti-theft Adaptation, Key Unlock, And Module Reading and Cloning For VOLVO Series.

Function Coverage Summary

- **Anti-theft Adaptation**
Smart/Semi-Smart/Toothless knob keys added, Smart/Semi-Smart/Toothless knob Keys All Lost, Smart/Semi-Smart/Toothless knob key deleted.
- **Key Unlock**
Key recognition and unlock



Figure 1



Figure 2

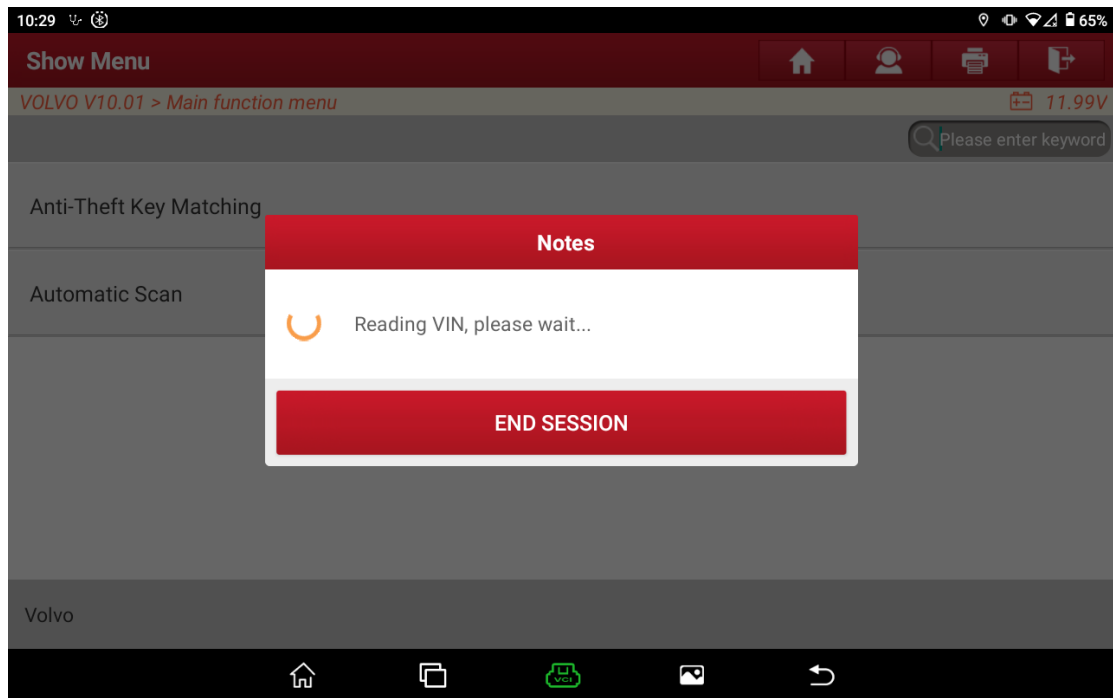


Figure 3

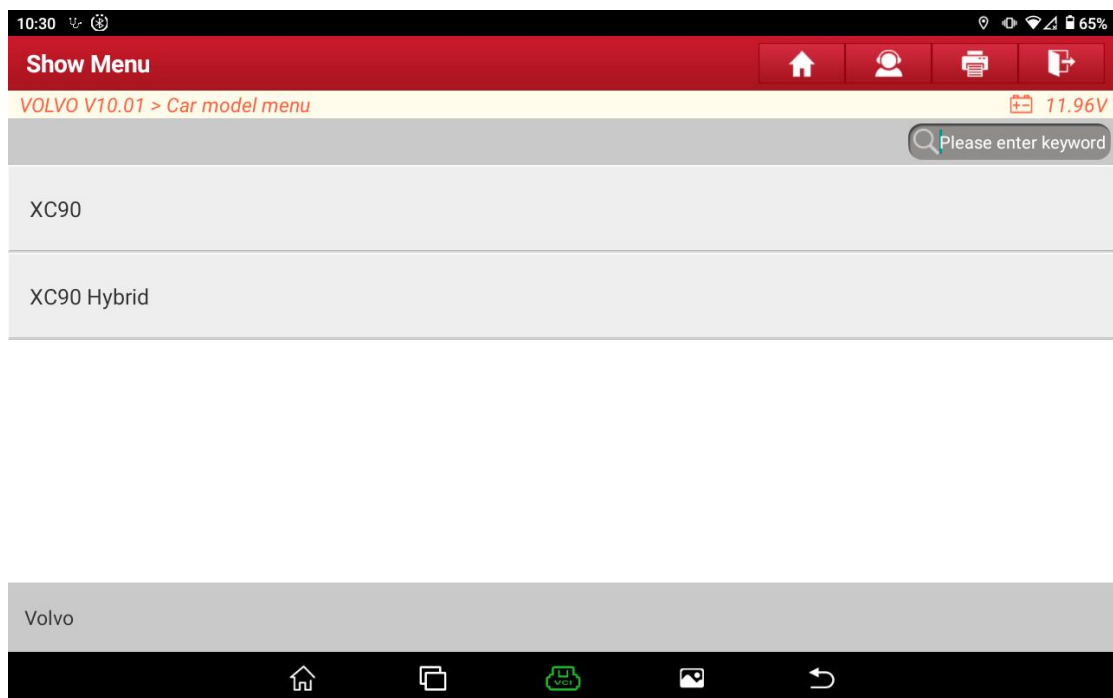


Figure 4

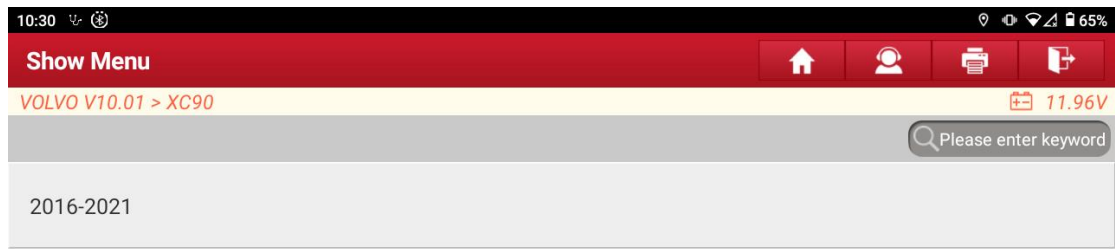


Figure 5

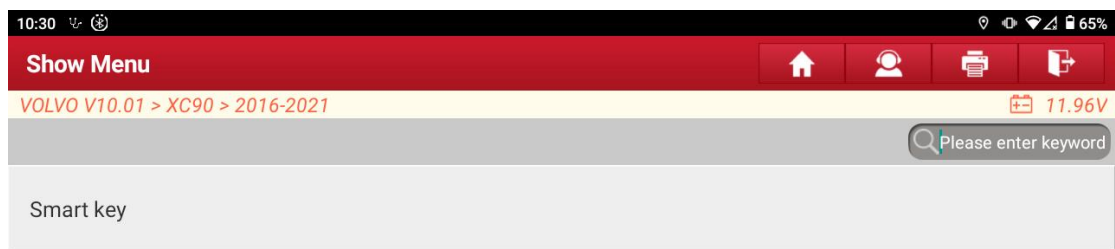


Figure 6

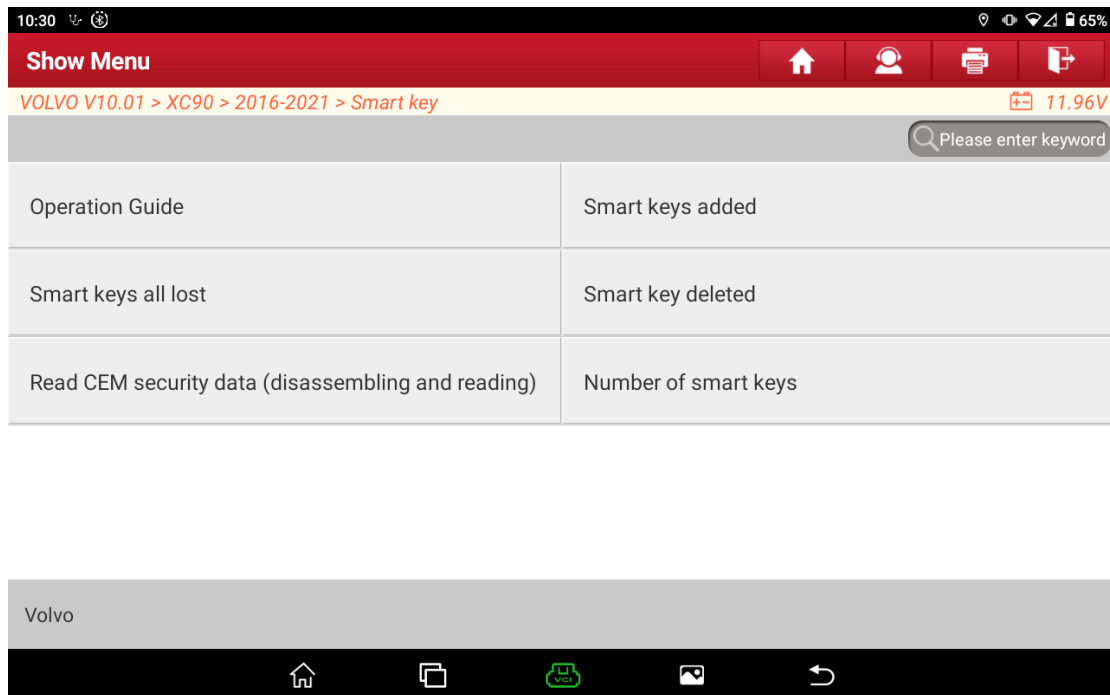


Figure 7

2. [Operation Guide]

Check the basic steps and precautions of the anti-theft matching process. (See Figure 8, Figure 9, Figure 10, and Figure 11 for the process steps)

1) Select the [Operation Guide] function to view the operation guide document.

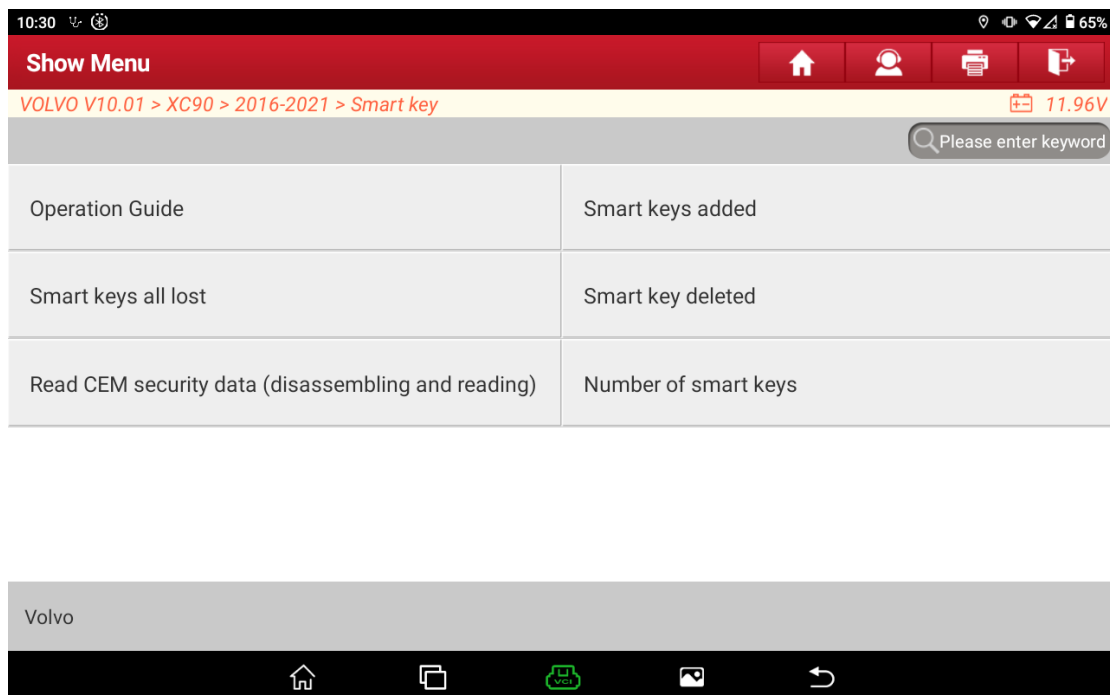


Figure 8

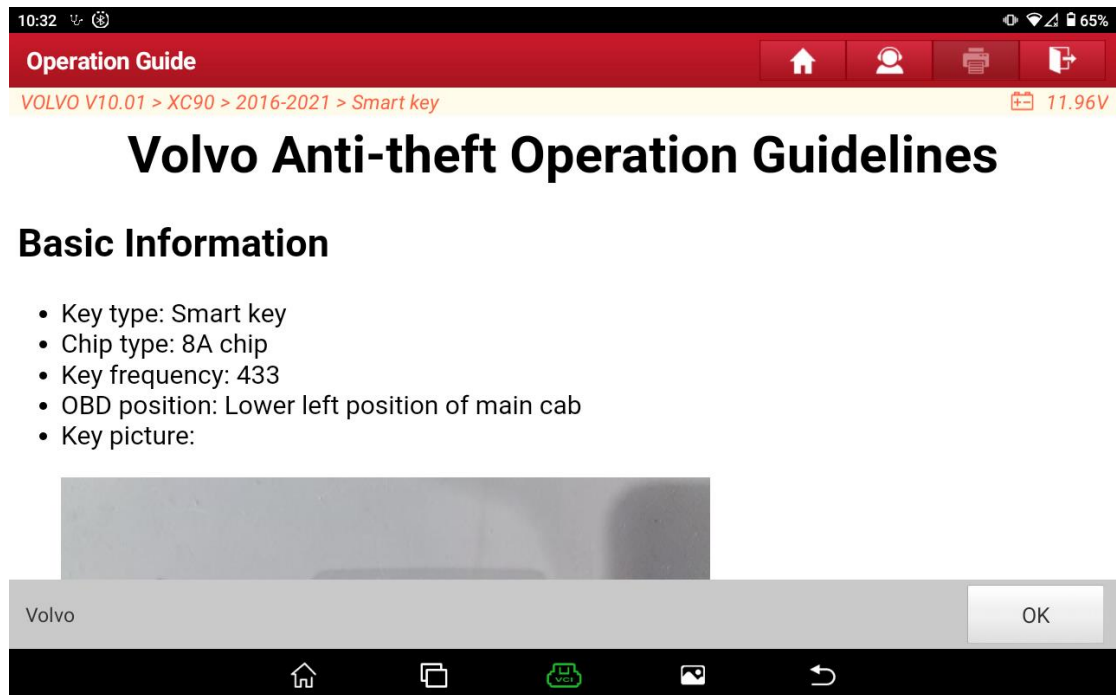


Figure 9

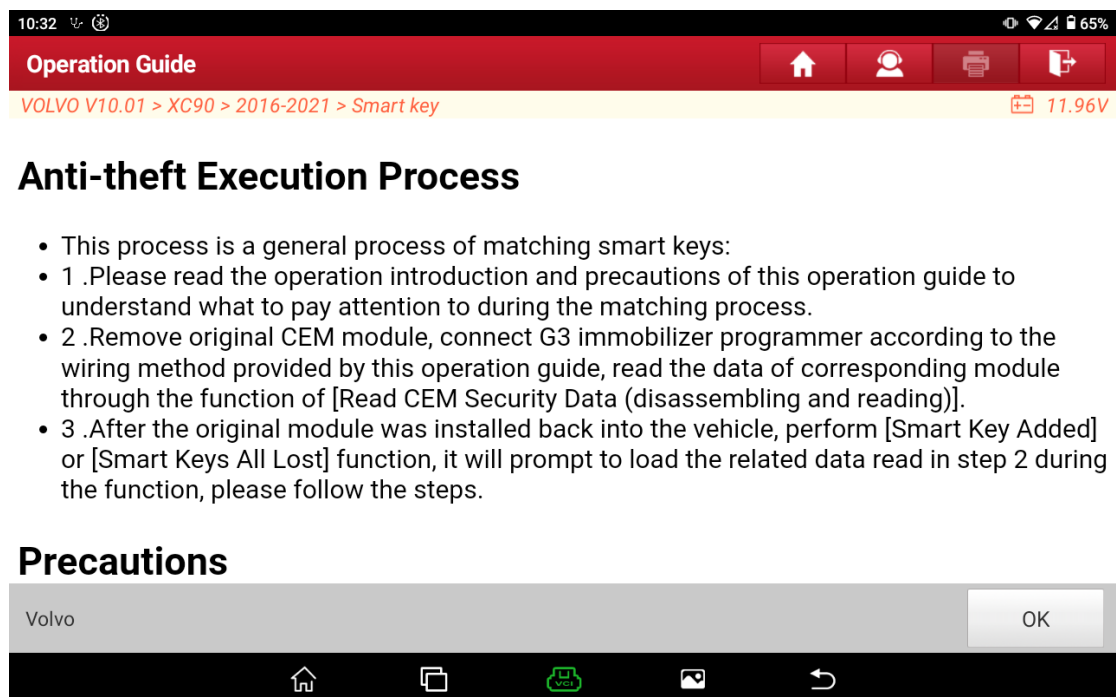


Figure 10



Anti-theft Execution Process

- This process is a general process of matching smart keys:
- 1 .Please read the operation introduction and precautions of this operation guide to understand what to pay attention to during the matching process.
- 2 .Remove original CEM module, connect G3 immobilizer programmer according to the wiring method provided by this operation guide, read the data of corresponding module through the function of [Read CEM Security Data (disassembling and reading)].
- 3 .After the original module was installed back into the vehicle, perform [Smart Key Added] or [Smart Keys All Lost] function, it will prompt to load the related data read in step 2 during the function, please follow the steps.

Precautions



Figure 11

3. [Read CEM security data (disassembling and reading)]

By reading the operation document of the function of [Operation Guide], the MCU Cable V1 harness of G3 programmer should be used to connect the disassembled vehicle module, and then the MCU V1 adapter board should be used to connect the G3 programmer to the vehicle module. Finally, the function [Read CEM security data (disassembling and reading)] should be selected to read the anti-theft data of the vehicle module. (The module position and connection method are detailed in [Operation Guide], which will not be detailed in this document. See Figure 12, Figure 13 and Figure 14 for the process steps)

- 1) The connection diagram is as follows:

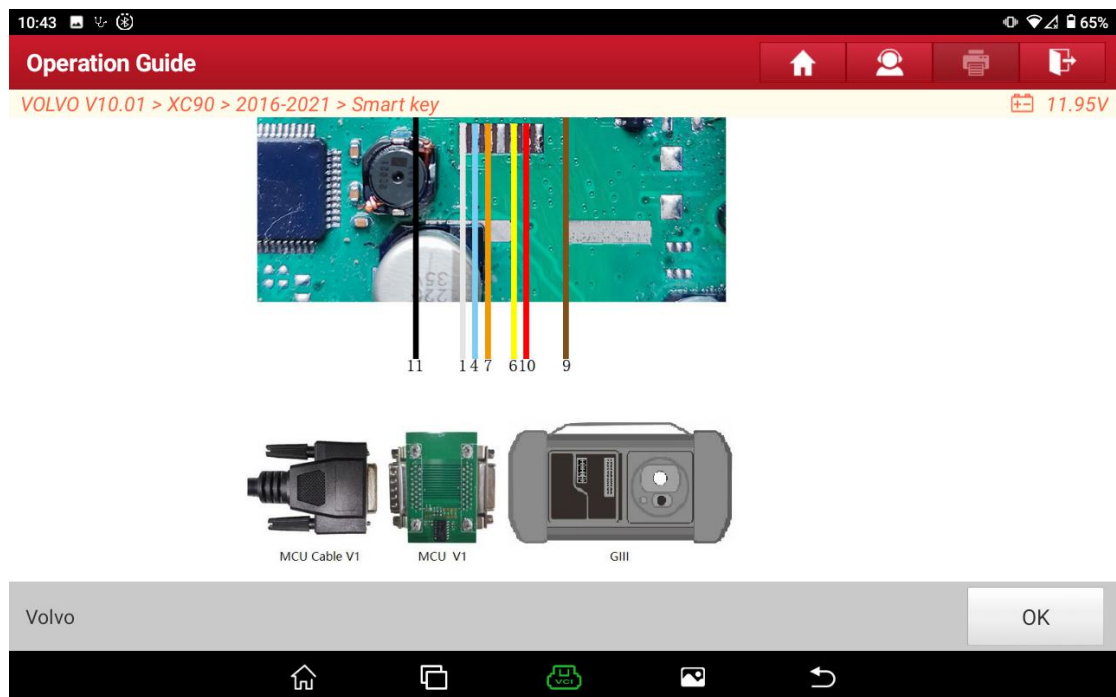


Figure 12

2) Select [Read CEM security data(disassembling and reading)] function

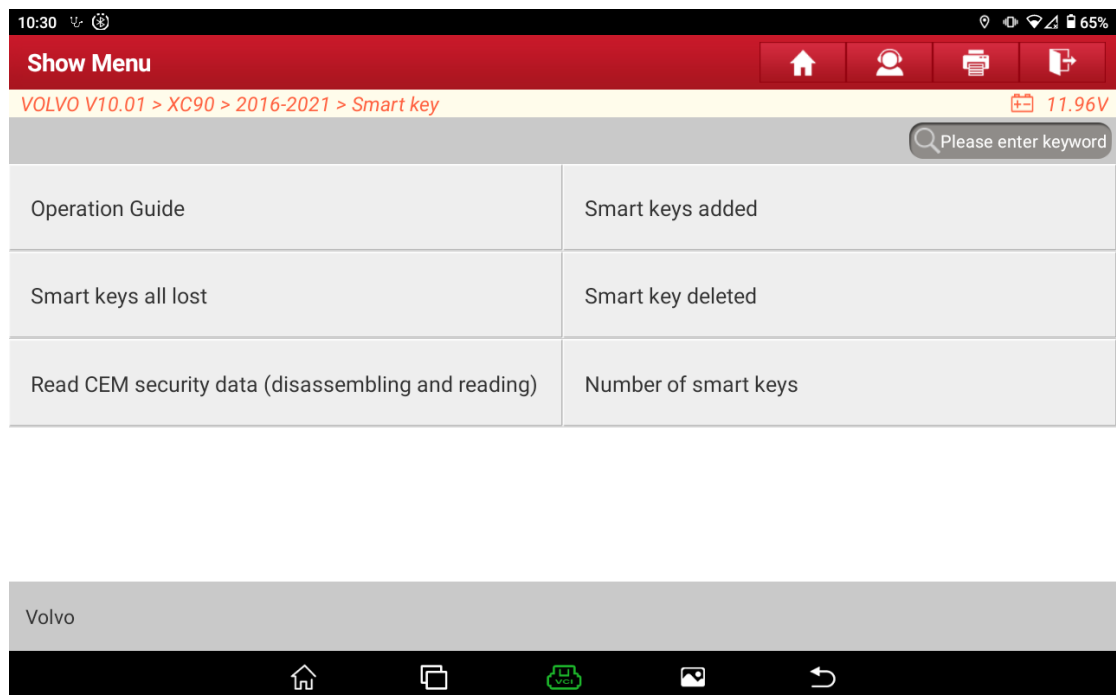


Figure 13

- 3) Prompt to view the [Operation Guide] function and click [YES] to proceed to the next step.

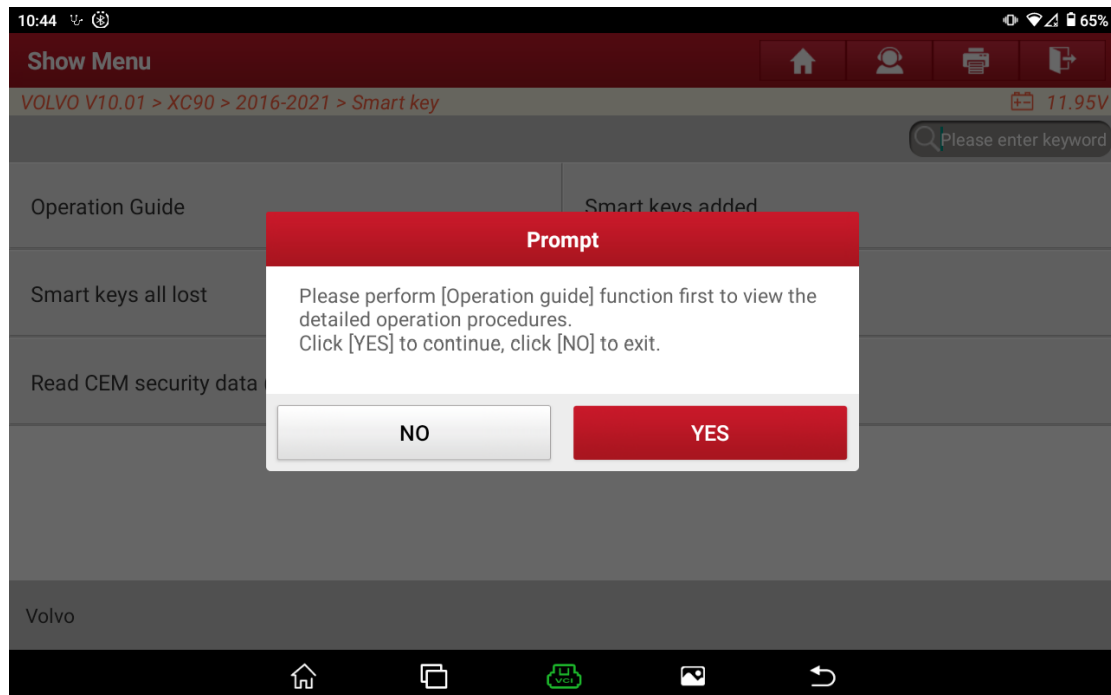


Figure 14

- 4) Connect G3 programmer. Connect anti-theft device, programmer and vehicle module according to [Operation guide]. Click [Yes] to proceed to the next step.

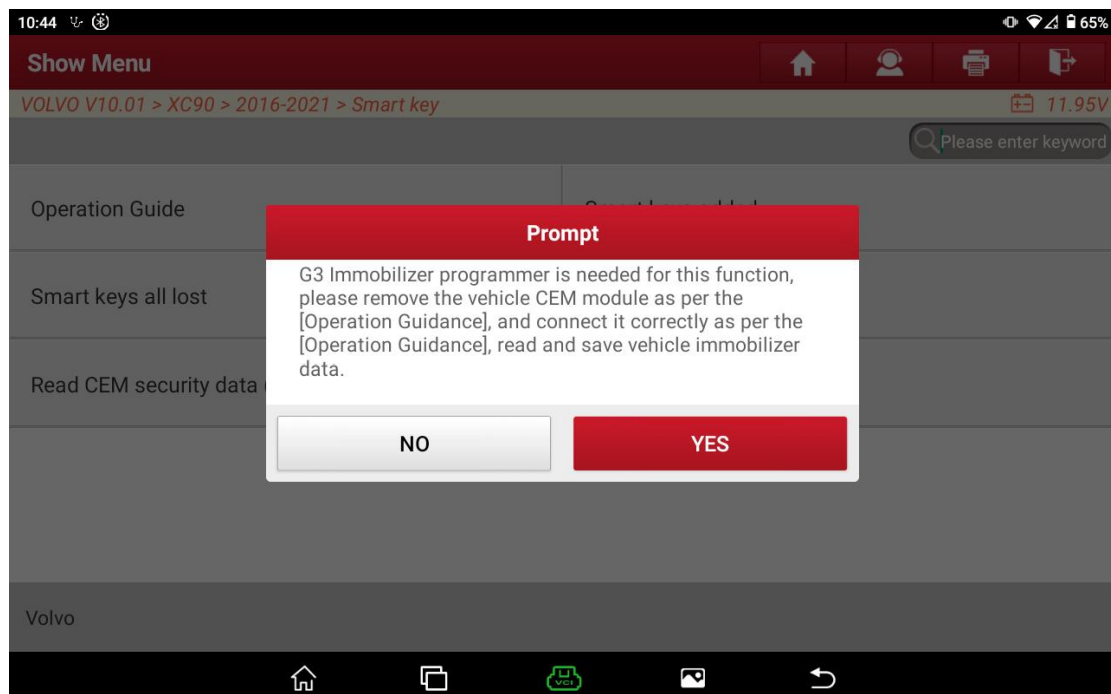


Figure 15

5) Select [SPC5748G] menu to proceed to the next step.

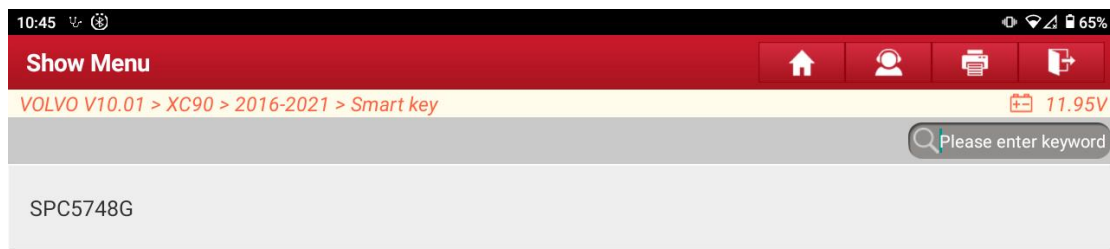


Figure 16

6) It is indicated that anti-theft data is being read. The reading time is about 2-3 minutes, during which no operation is required. Do not move the device to avoid data reading failure.

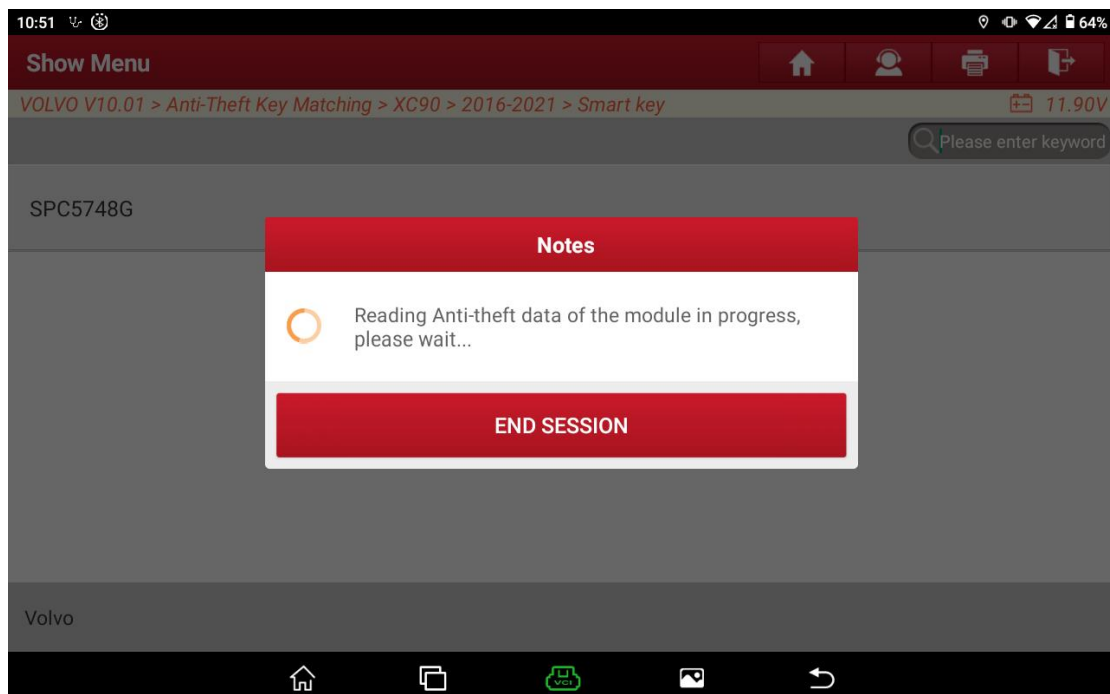


Figure 17

- 7) After the anti-theft data is read successfully, it is prompted that the data is read successfully and the data is saved. After the successful saving, the function execution is completed.

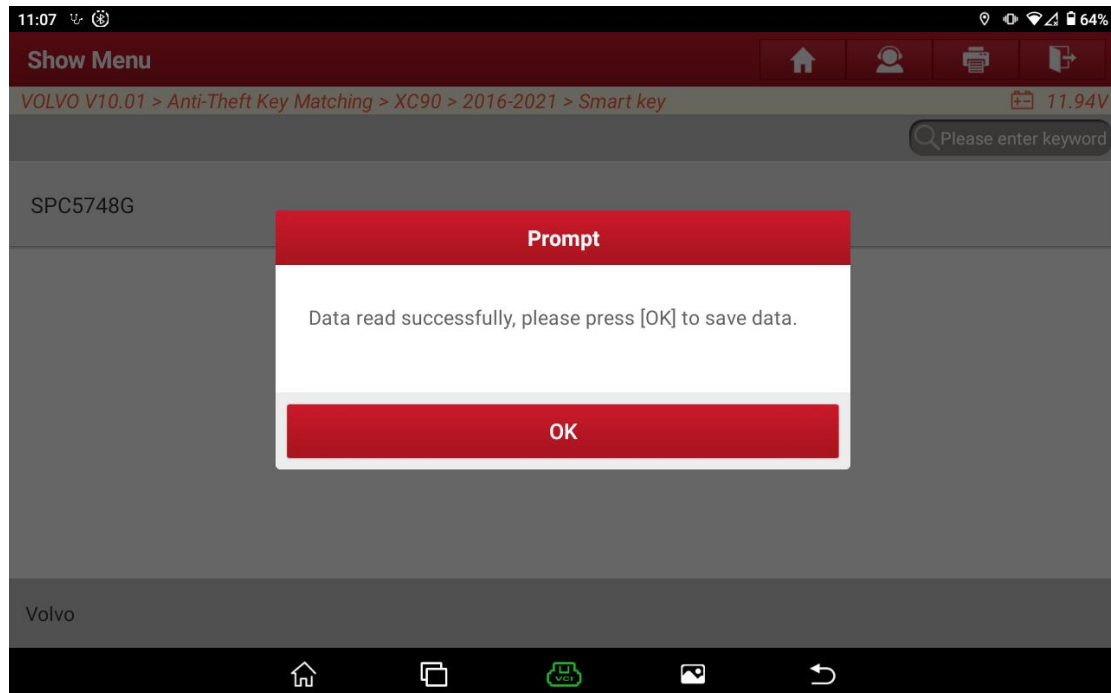


Figure 18

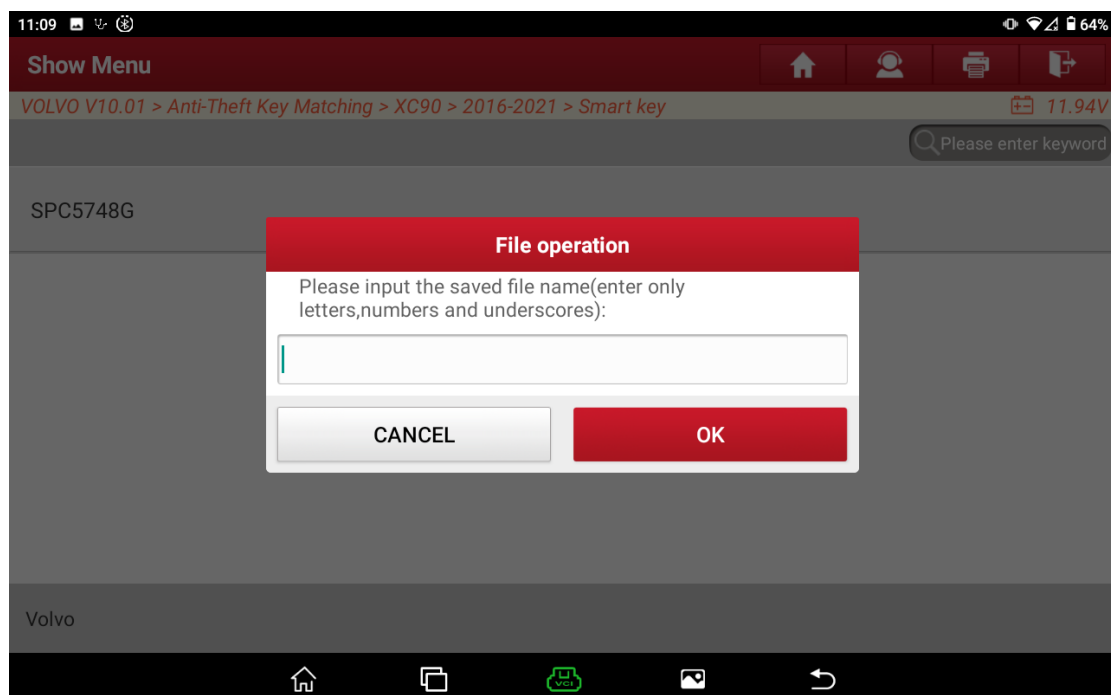


Figure 19

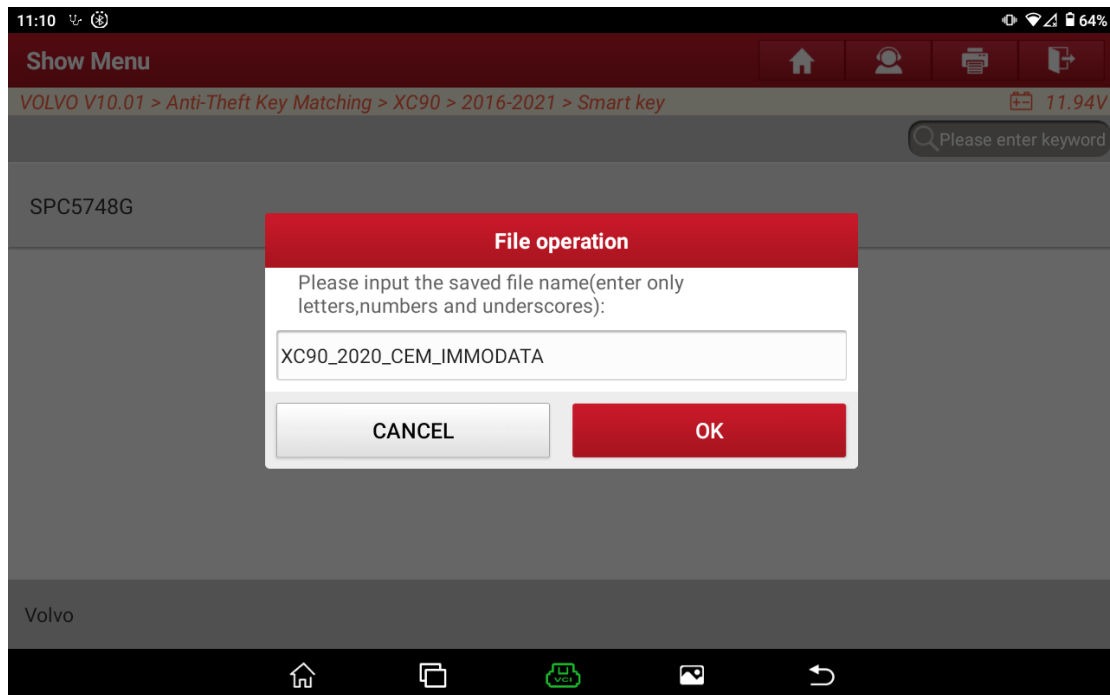


Figure 20

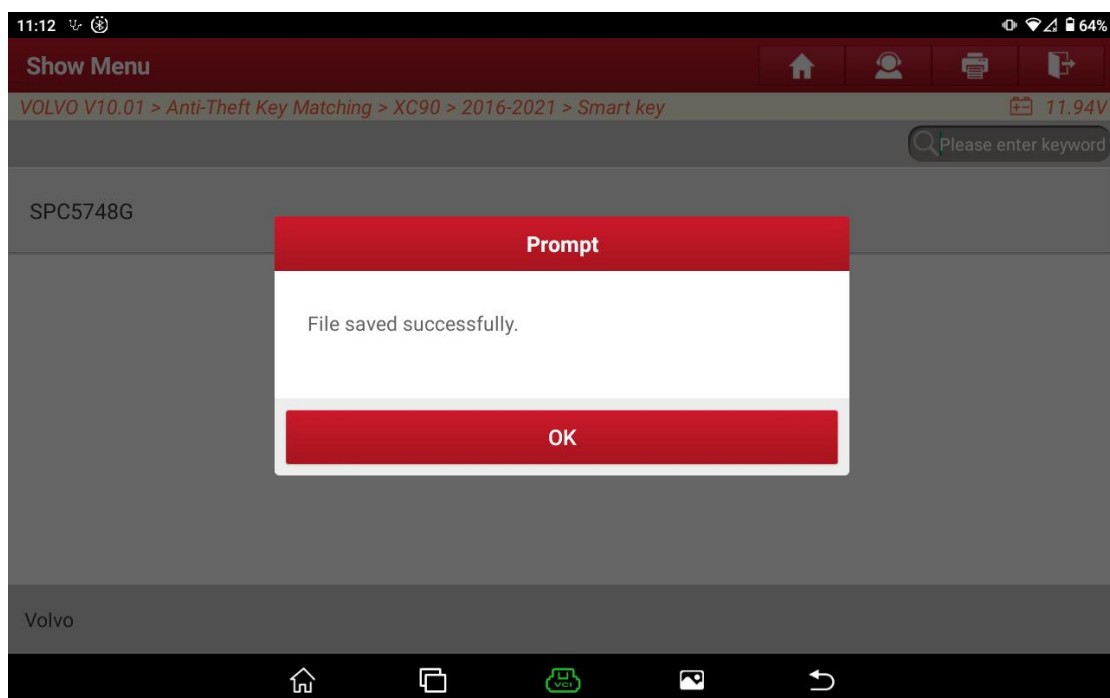


Figure 21

4. [Smart keys added]

The [Smart keys added] function is used to add keys to the vehicle without deleting the original car keys. The [Smart key all lost] function is used to add keys to the vehicle after deleting all the original car keys. After deleting the original car keys, the original car keys need to be re-matched before they can be used again. The

[Smart key deleted] function is used to delete all the original car keys. Please select a function based on actual requirements. This document uses [Smart keys added] as an example:

- 1) Select [Smart keys added] function, and the prompt is displayed to view the [Operation guide] function, click [YES] to proceed to the next step.

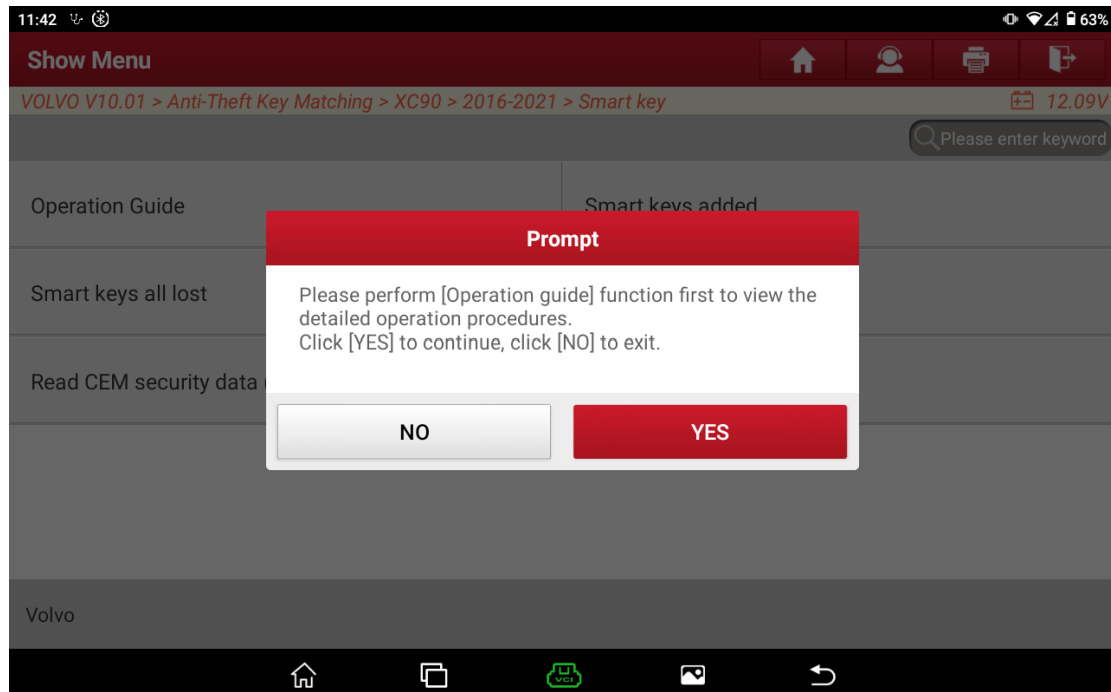


Figure 22

- 2) After completing the action 'Turn the START knob to the right for one time and then release it', click [OK] to go to the next step.

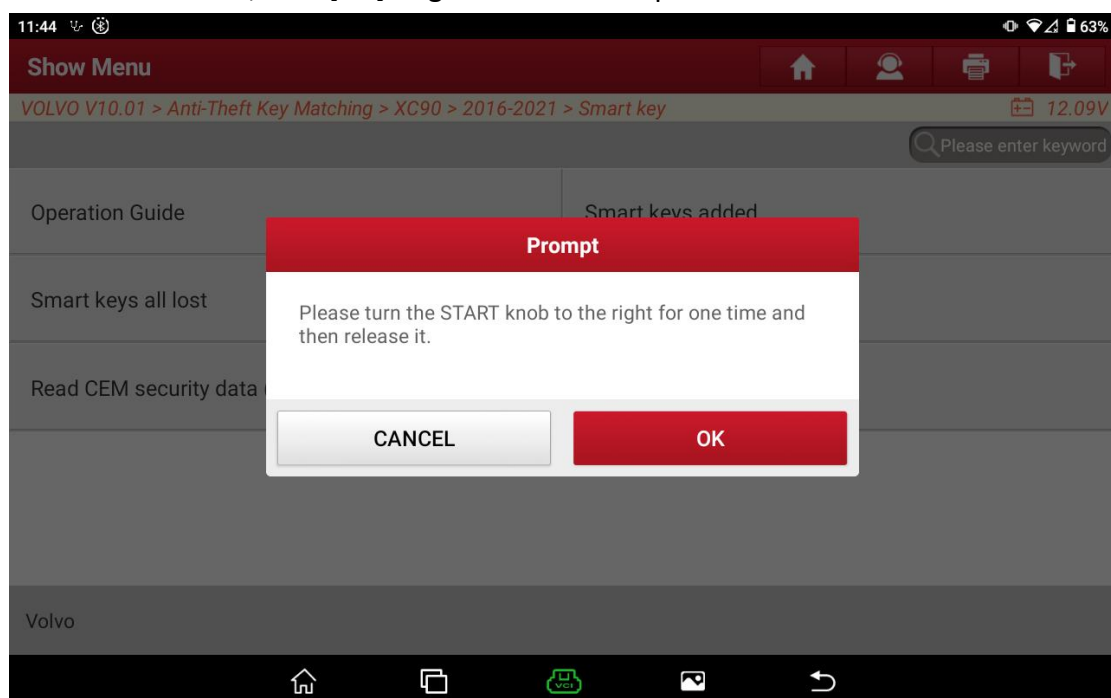


Figure 23

- 3) A prompt is displayed to load CEM security data, click [OK] to load the anti-theft data.

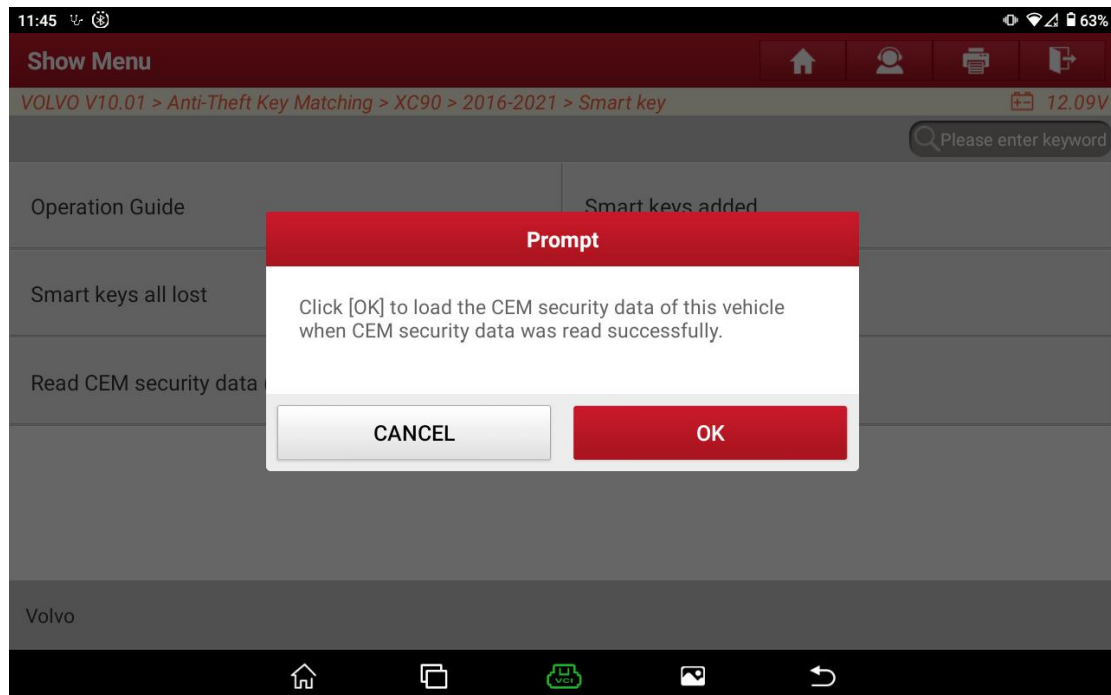


Figure 24

- 4) Select the read data file, here we select file XC90_2020_CEM_IMMODATA.bin (see Figure 25, Figure 26)

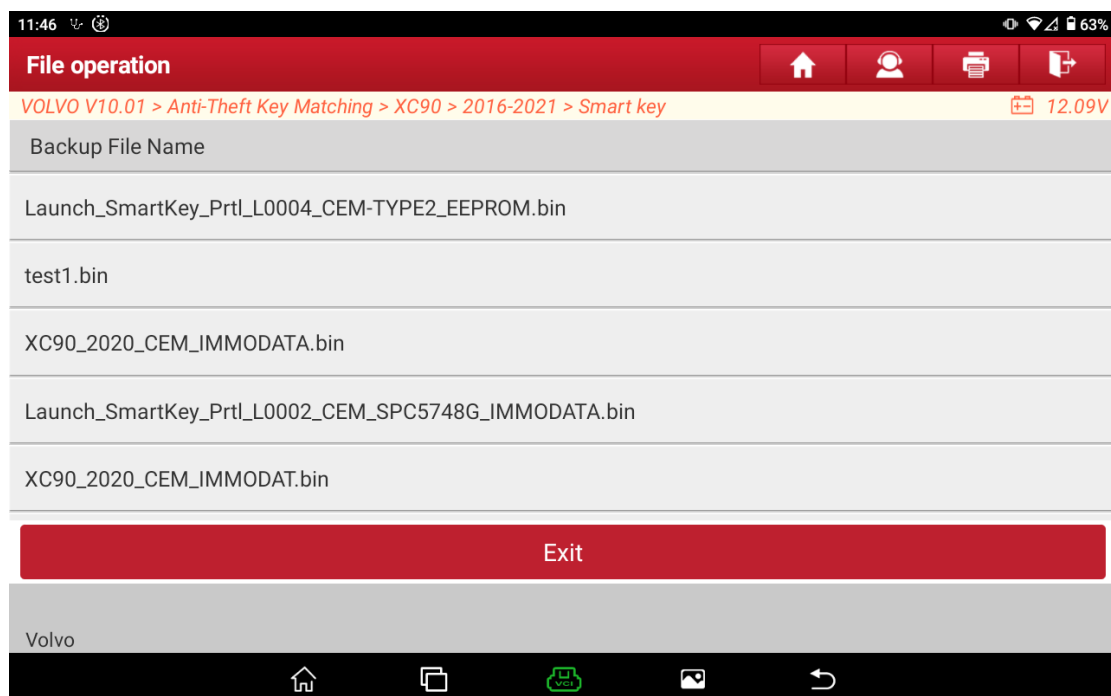


Figure 25

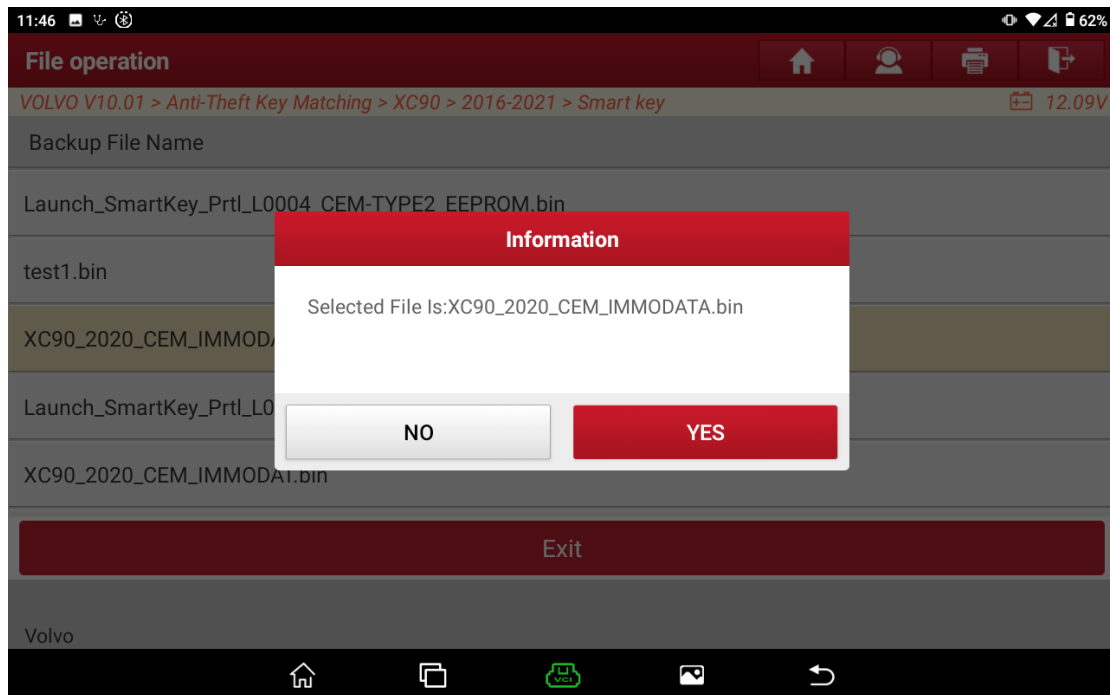


Figure 26

- 5) It's prompted to put the key to be matched into the induction area, and other intelligent keys are taken out of the car. Click [OK] to perform the next step.

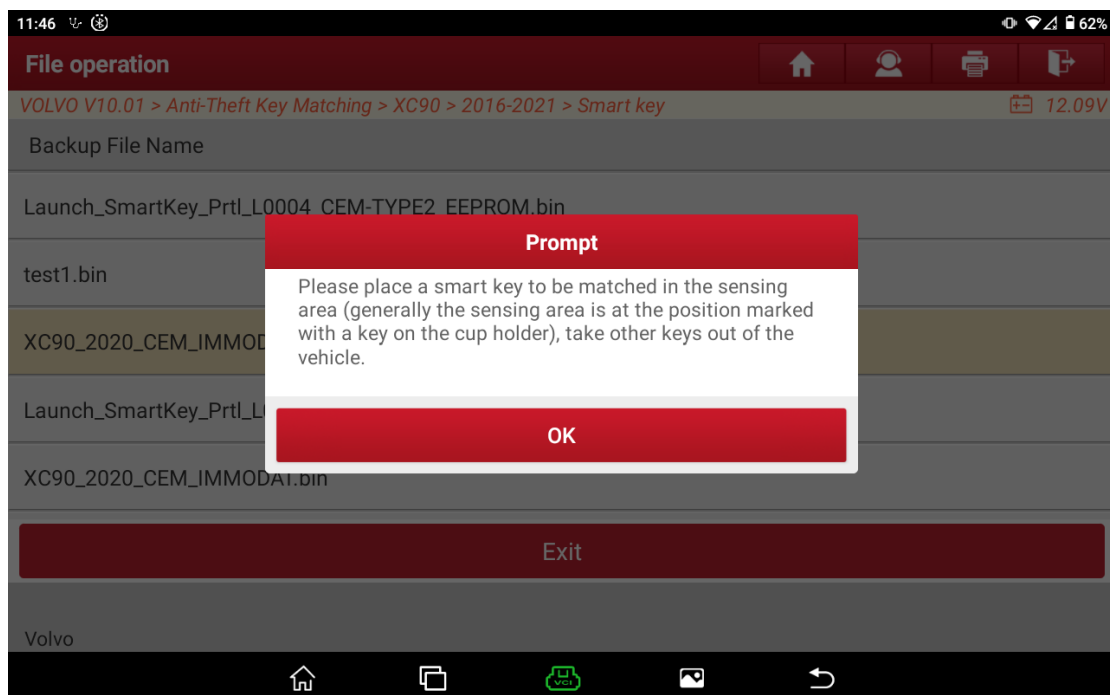


Figure 27

- 6) Wait for the key to be matched. If the key is matched successfully, a message will be displayed indicating that the key is matched successfully. If you need to continue to match the new key, click [OK] and perform Step 5). If not, please click [CANCEL] to exit (See Figure 28, Figure 29)

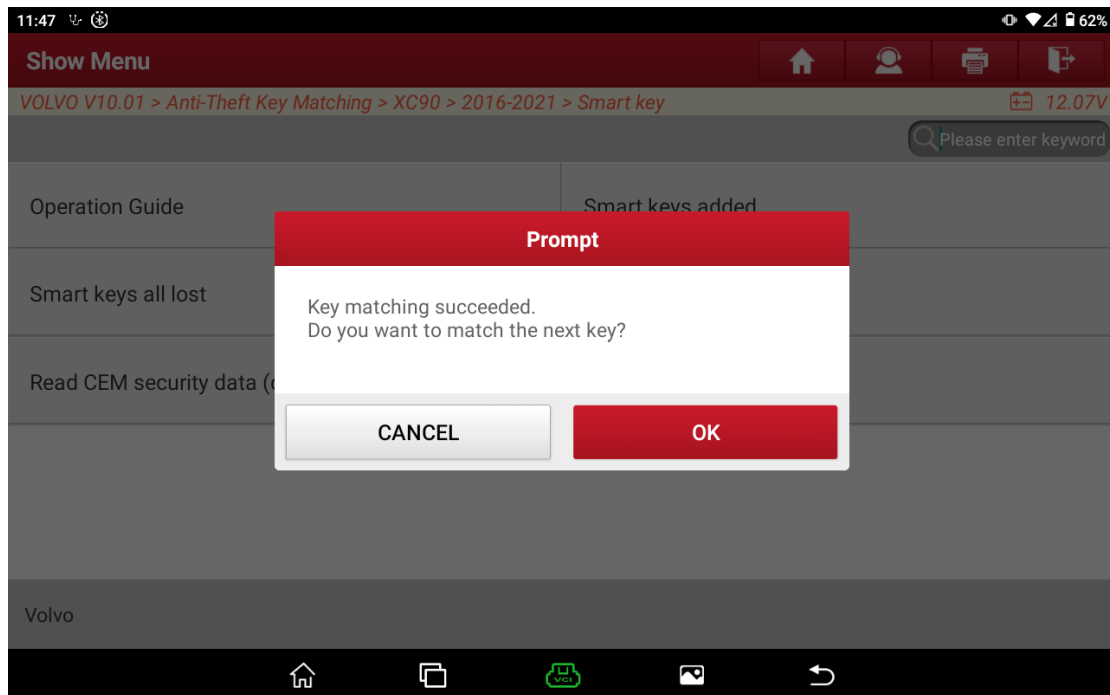


Figure 28

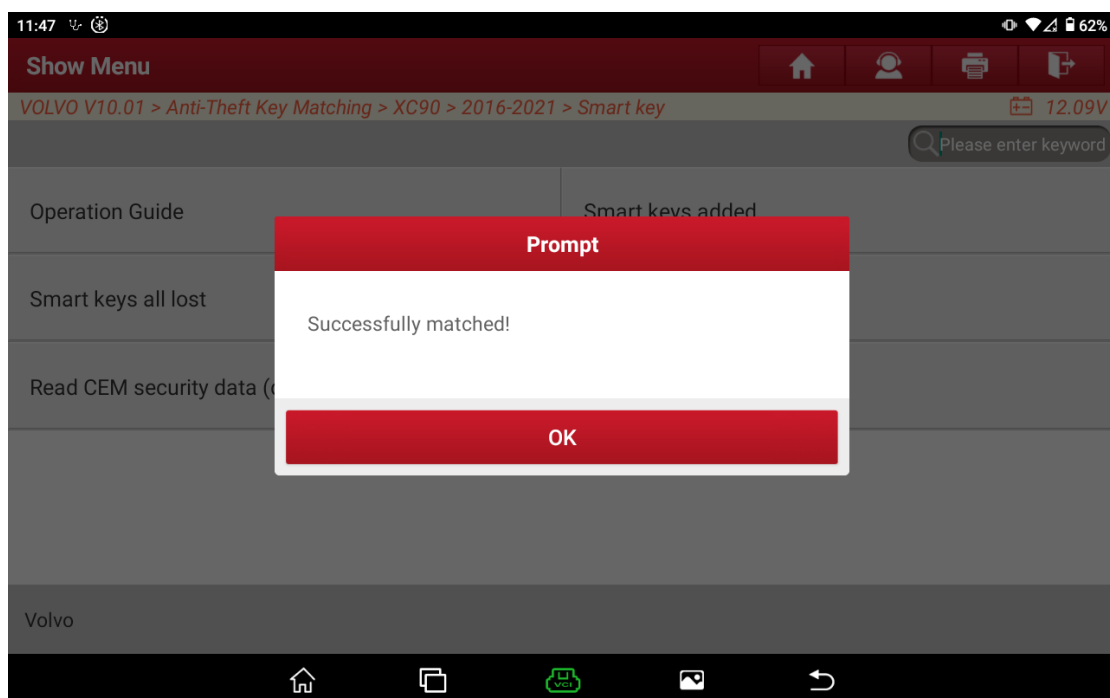


Figure 29

Statement:

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