Volvo Anti-theft Operation Guidelines-Type 1

List of applicable models

Brand	Model	Year	Key type
VOLVO	C30	2007-2013	Toothless Knob Key
VOLVO	C70	2007-2013	Toothless Knob Key
VOLVO	S40	2004-2012	Toothless Knob Key
VOLVO	V50	2006-2012	Toothless Knob Key

Anti-theft conditions and requirements

1. Launch IMMO PRO/IMMO PAD (professional version).
2. The toothless knob key used for anti-theft matching is divided into 16-digit and 24-digit remote control data. Before purchasing the key, please confirm whether the key used by the current vehicle is a 16-digit remote control data key or a 24-digit one. Please refer to Step 4 of anti-theft operation.

Anti-theft operation process

The operation process demonstration takes Volvo S40 2008 toothless knob key as an example.

1.　Vehicle series entry

Select [Volvo] -> [Anti-theft Key Matching] -> [S40] -> [2004-2012] -> [Toothless Knob Key] (See Figure 1, Figure 2, Figure 3, Figure 4, Figure 5, Figure 6 for the process steps)

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Vehicle Version Information   🏠 🖨 ➡️

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

| | Vehicle Coverage | Search Bluetooth | OK |

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Figure 1

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Show Menu   🏠 👤 🖨 ➡️

VOLVO V10.01 > Main function menu   ⊟ *12.01V*

🔍 Please enter keyword

Anti-Theft Key Matching

Automatic Scan

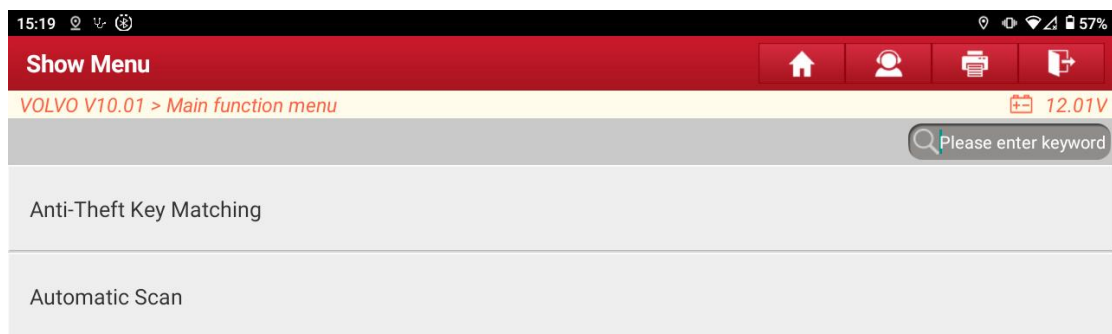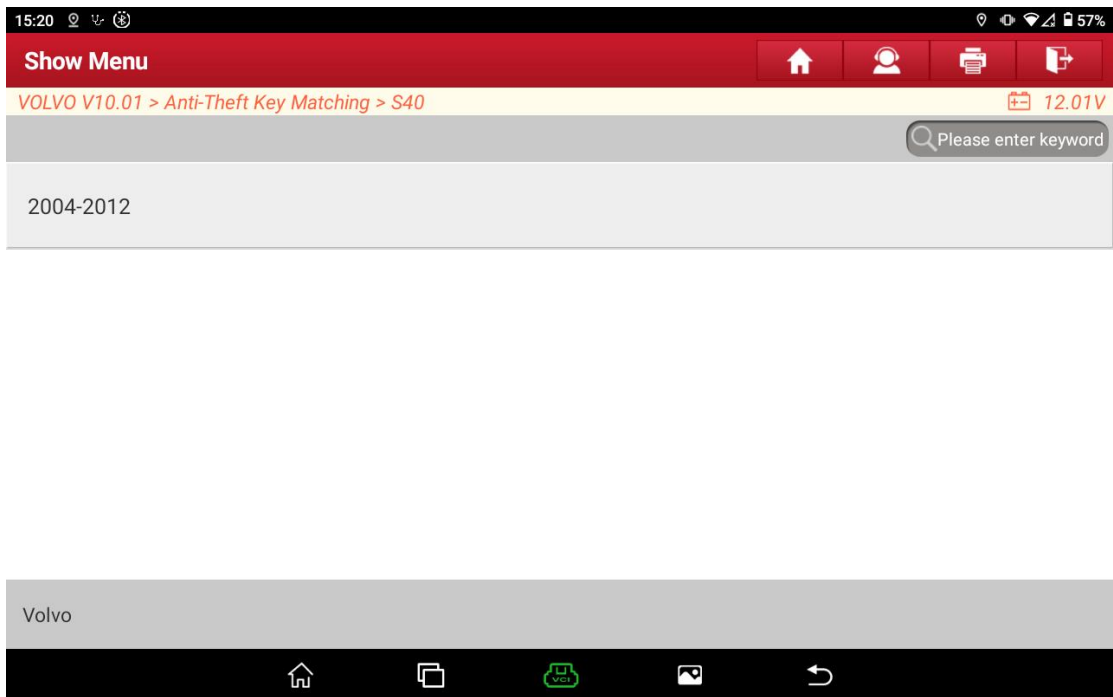Volvo

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Figure 2
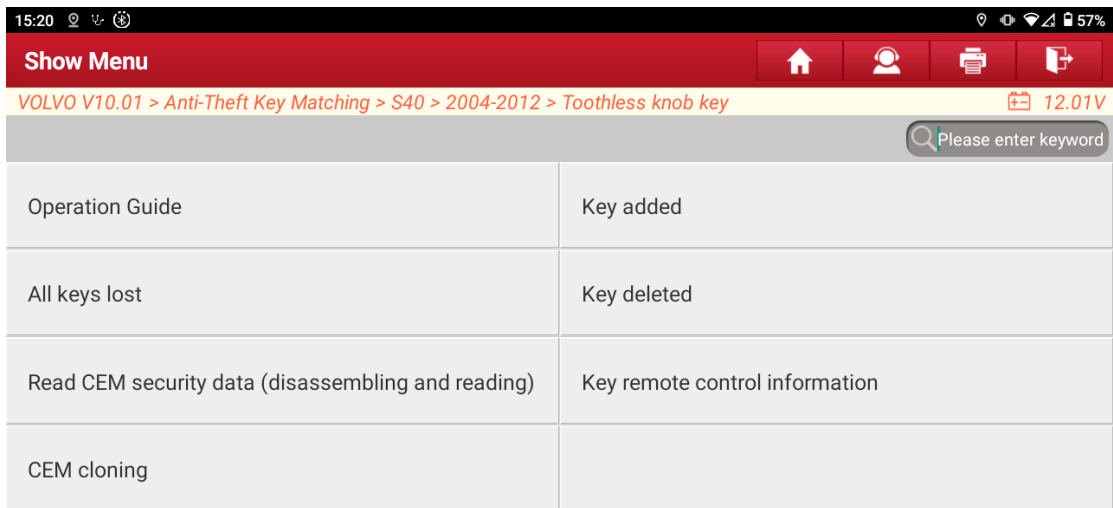
Figure 3

Figure 4

Figure 5

Figure 6

2. [Operation Guide]

Check the basic steps and precautions of the anti-theft matching process.

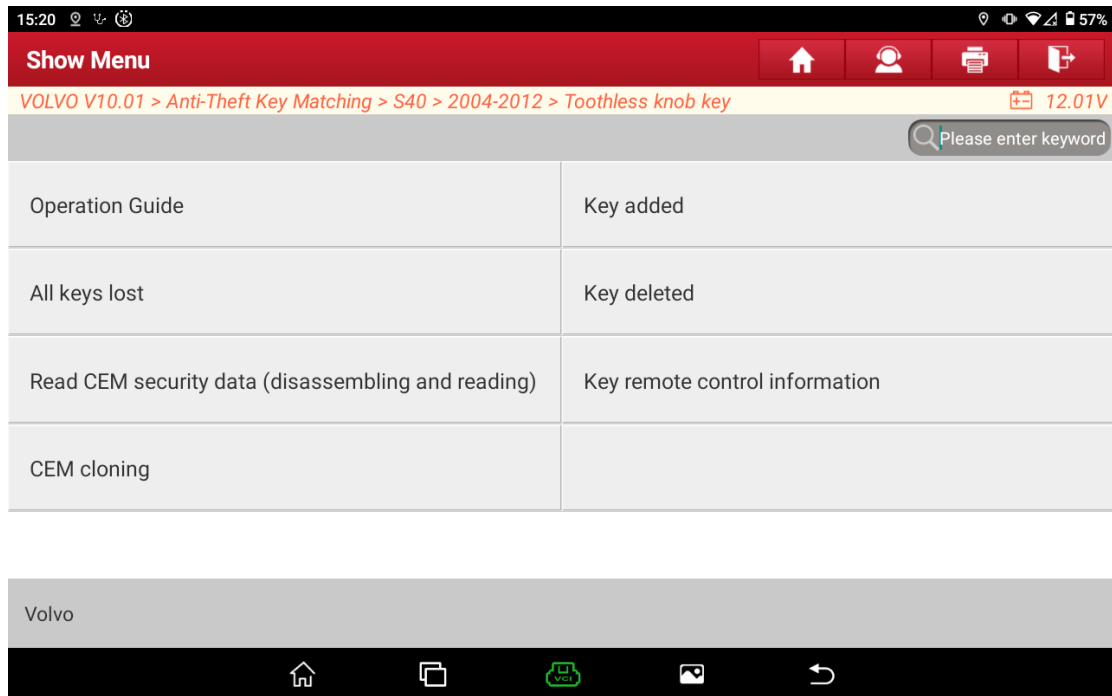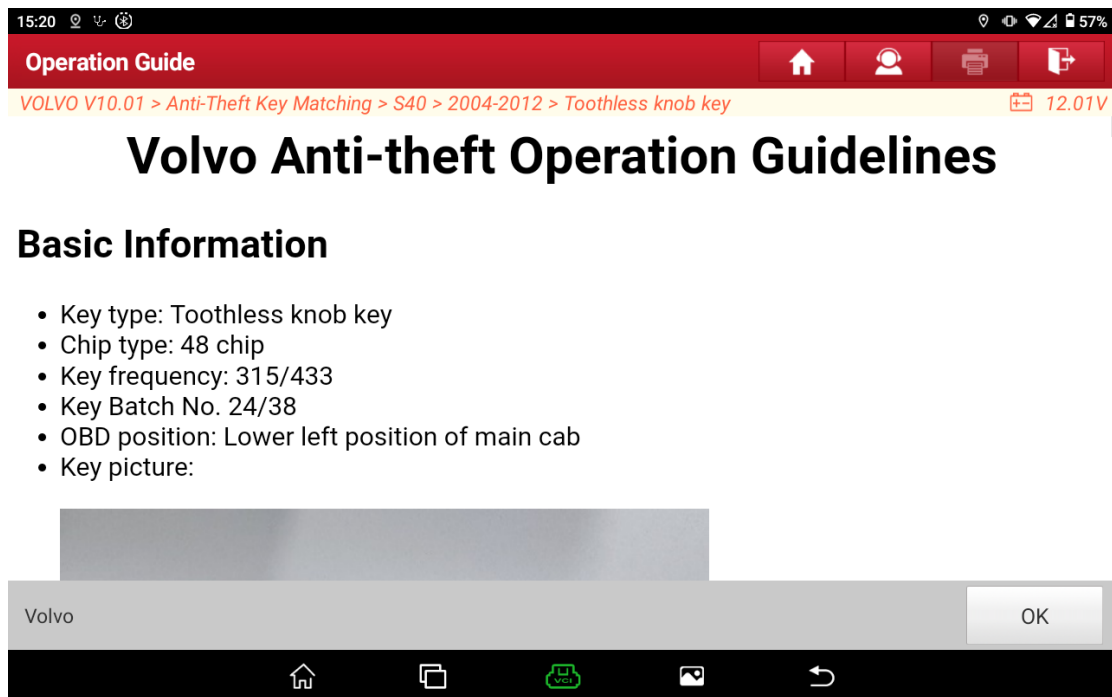**1) Select [Operation Guide] function to check the operation guide documents.**

Figure 8

Figure 9

Anti-theft Execution Process

- This process is a general process of matching toothless knob 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. Before perform [Key Added] or [Keys All Lost] function, please perform [Key remote control information] function, save vehicle's original key remote control information.
- 4. Perform [Key Added] or [Keys All Lost] function, it will prompt to load the related data read in step 2 during the function, please follow the steps.

Volvo   OK

Figure 10

read in step 2 during the function, please follow the steps.
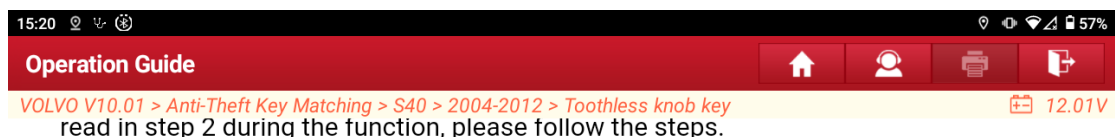
Precautions

- Please read the vehicle key remote control information through the function of [Key Remote Control Information] before performing this function, and record related information to avoid data loss.
- This system is only applied to toothless knob key matching, please confirm the type of the key before matching.
- Distinguish smart keys and toothless knob keys, 'PK' is printed on the packing box of smart keys, 'RFK' is printed on the packing box of toothless knob keys.
- There may be some modules that are not fully covered, please help feed back the prompt information to us and we will improve in time.
- Please strictly follow the device prompts in the process of matching.

Volvo   OK

Figure 11

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

By reading the operation document through 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 V2 adapter 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 location and cable connection are

detailed in the [Operation Guide]. This document will not describe this part in detail. The procedure is as follows)

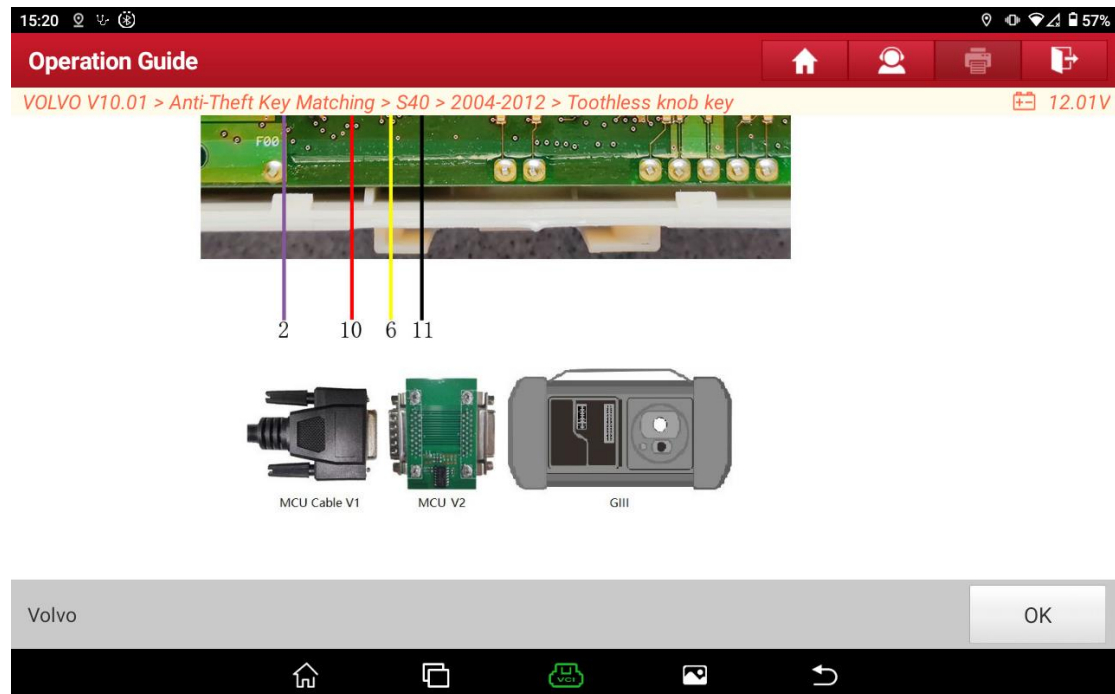**1) The connection diagram is as follows:**

Figure 12

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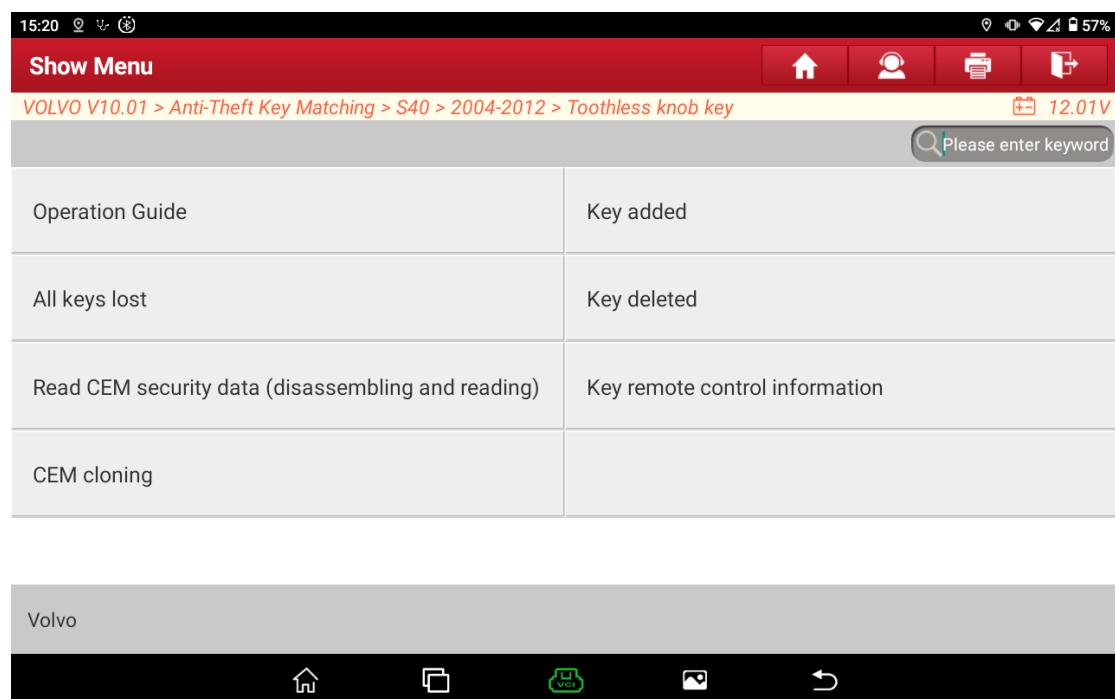

Figure 13

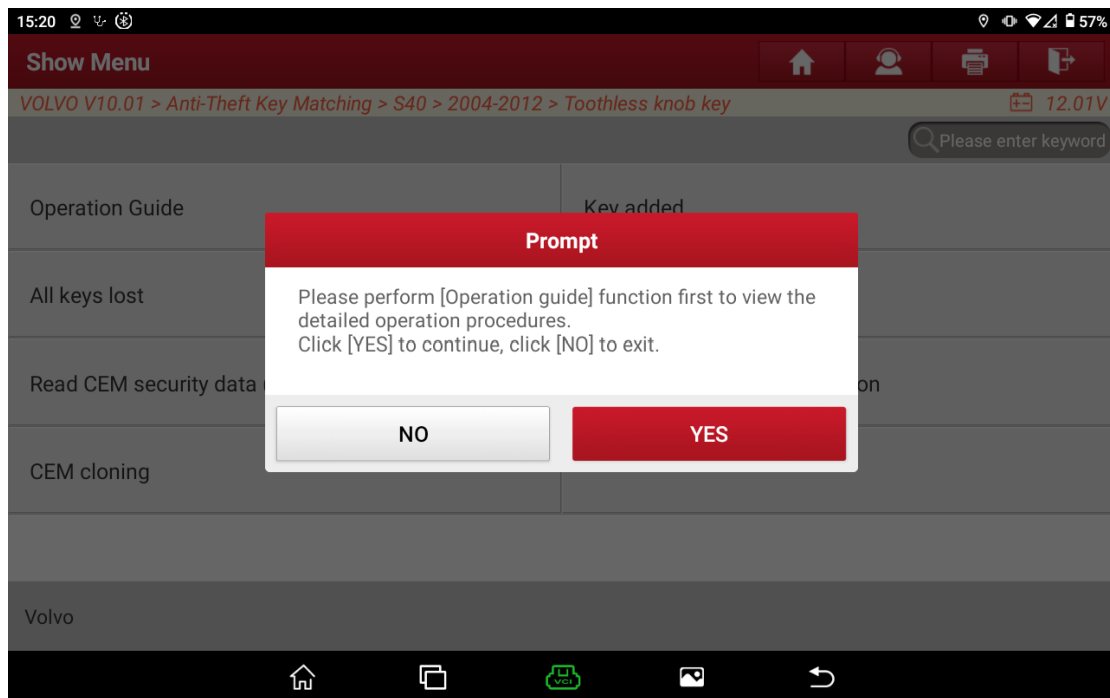**3) Prompt to view the [Operation Guide] function and click [YES] to proceed to the next step.**

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Show Menu   🏠   👤   🖨   ↪

VOLVO V10.01 > Anti-Theft Key Matching > S40 > 2004-2012 > Toothless knob key   🔋 12.01V

🔍 Please enter keyword

Operation Guide   Key added

Prompt

All keys lost

Please perform [Operation guide] function first to view the
detailed operation procedures.
Read CEM security data   on
Click [YES] to continue, click [NO] to exit.

NO   YES

CEM cloning

Volvo

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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.
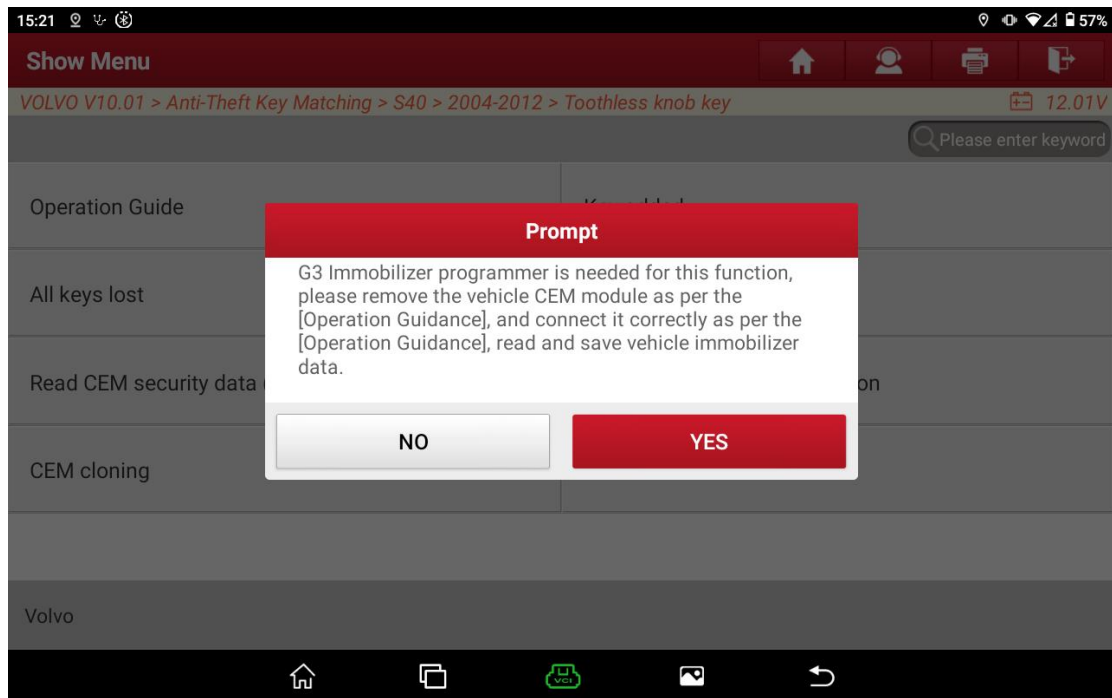
Figure 15

5) The module needs to read the relevant data of two chips. Select the corresponding module chip menu to read the data. For example, select MC9S12DT256 and MC9S12DG128 to read the data. For details about the connection mode, please refer to [Operation Guide] function.
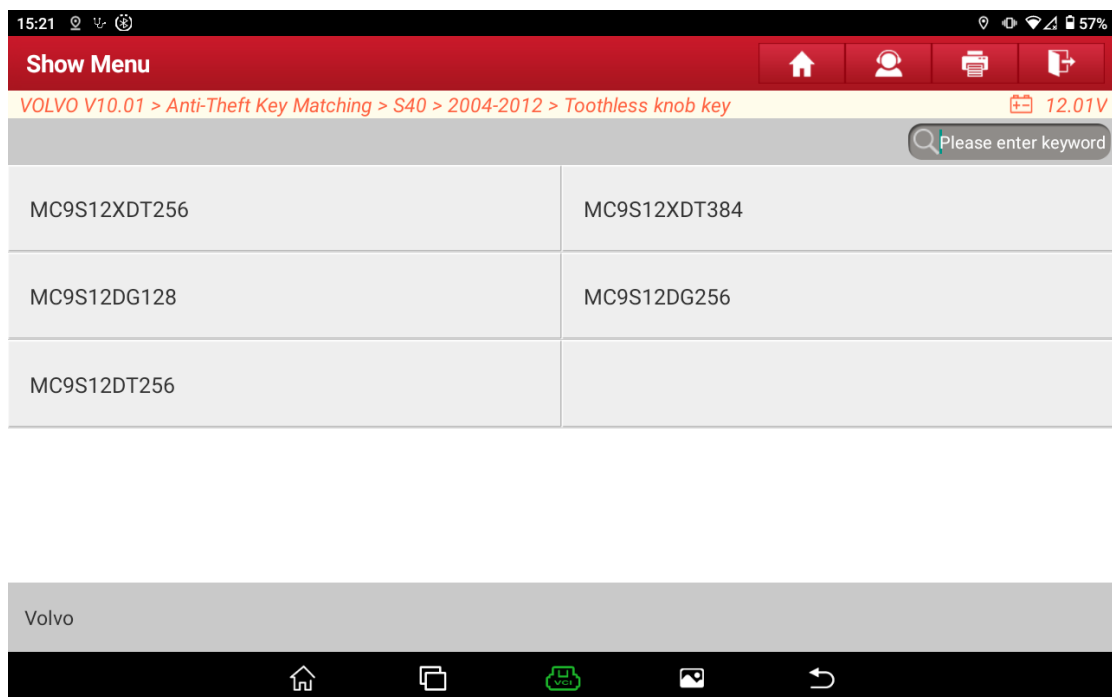
6) A message is displayed indicating that data is being read. The read time is about 30 seconds. Do not move the device during this period to avoid data read failure.
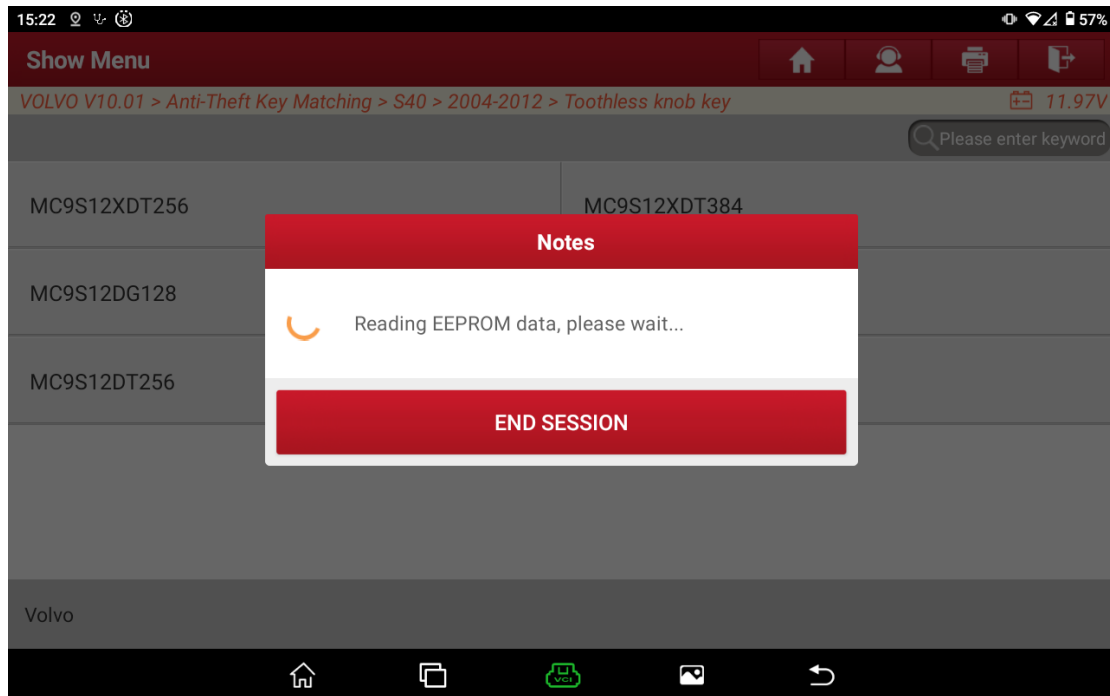
Figure 16

7) After the data is read successfully, a message is displayed indicating that the EEPROM data is read successfully and saved. After the data is saved, the function is executed successfully.
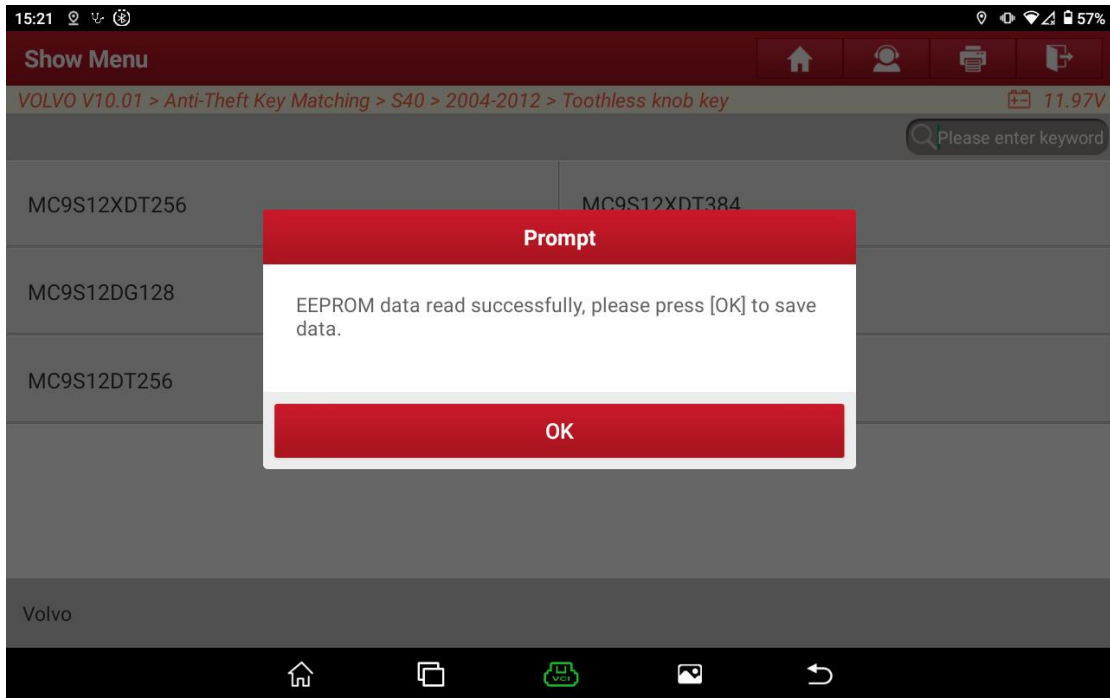
Figure 17
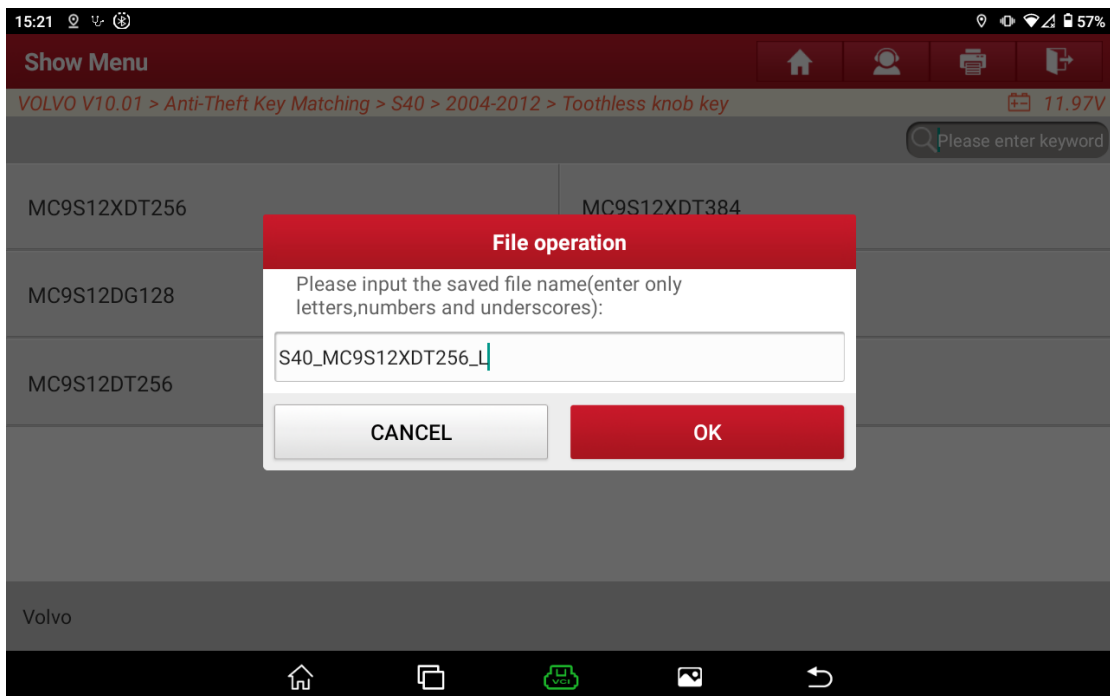
Figure 18
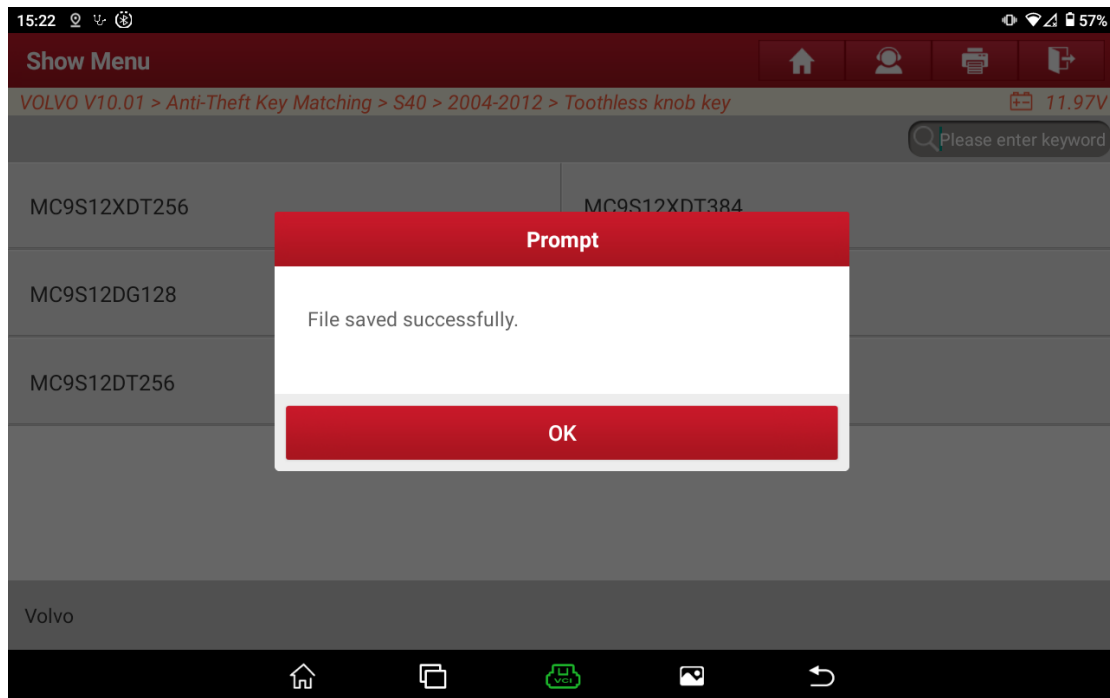
Figure 19

8) For details about how to read other chip data, see Step 5 to Step 7

4. [Key Remote Control Information]

Before implementing the key matching anti-theft function, it is necessary to perform the function of [Key remote control information] to read the key and remote control data information of the current vehicle, and save the screenshots in case the key and remote control data cannot be recovered if they are lost.

The read key remote control information can be used to confirm whether the current model uses 16-digit remote control data or 24-digit remote control data, and purchase the corresponding key according to the actual situation.

5. [Key added]

The function of [Key added] is used to add keys to the vehicle without deleting the original car keys. The function of [All keys lost] 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 function of [Key deleted] is used to delete the original car keys. Please select a function based on actual requirements. This document takes [Key added] as an example:

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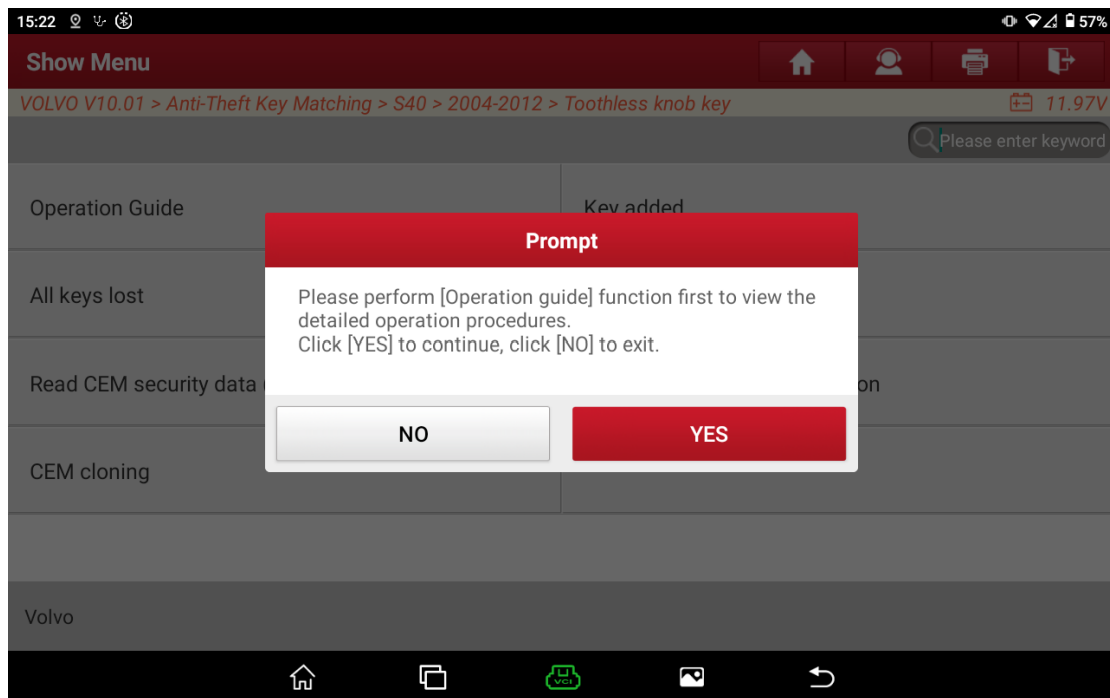

Figure 30

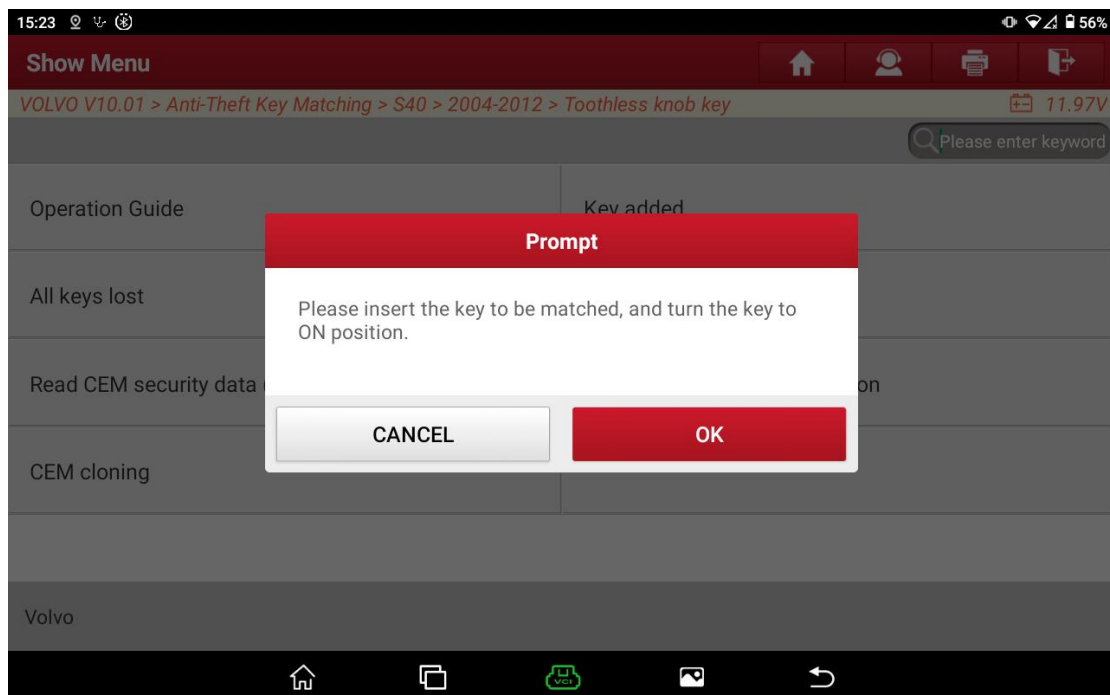2) **After completing the operation as prompted, click [OK] to proceed to the next step.**

Figure 31

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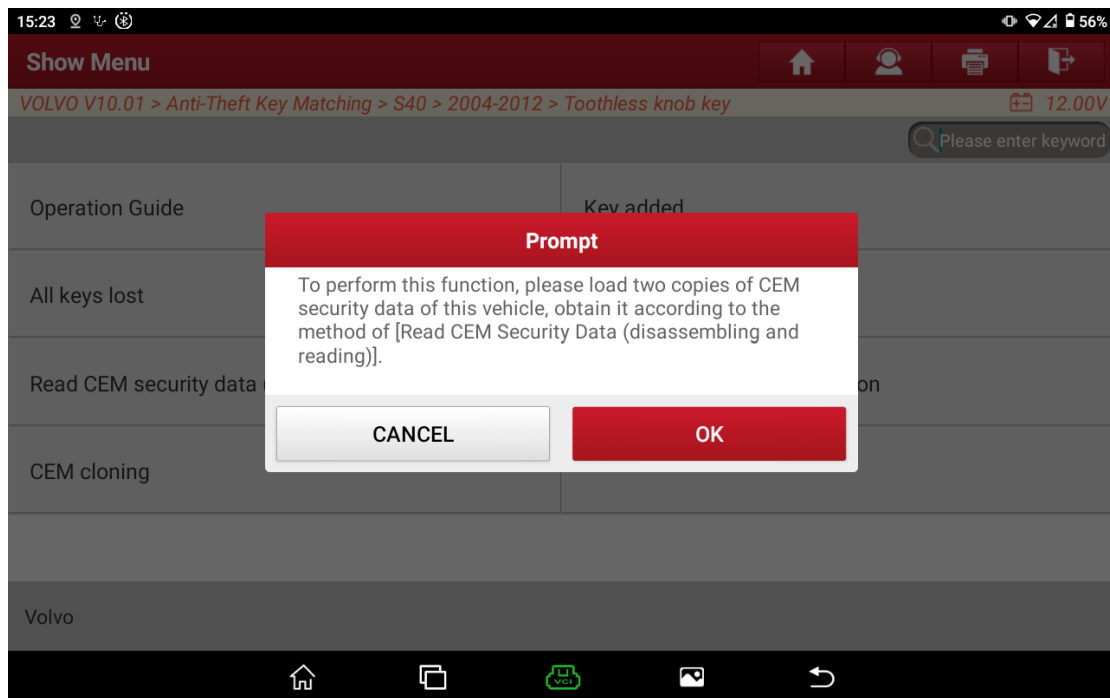

Figure 32

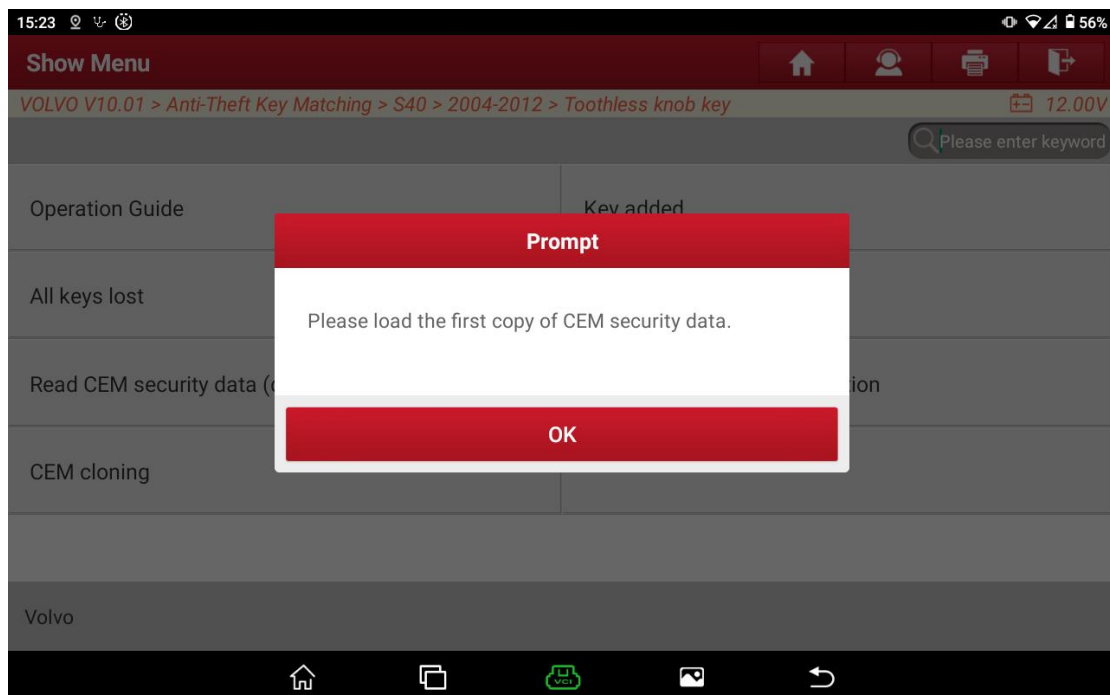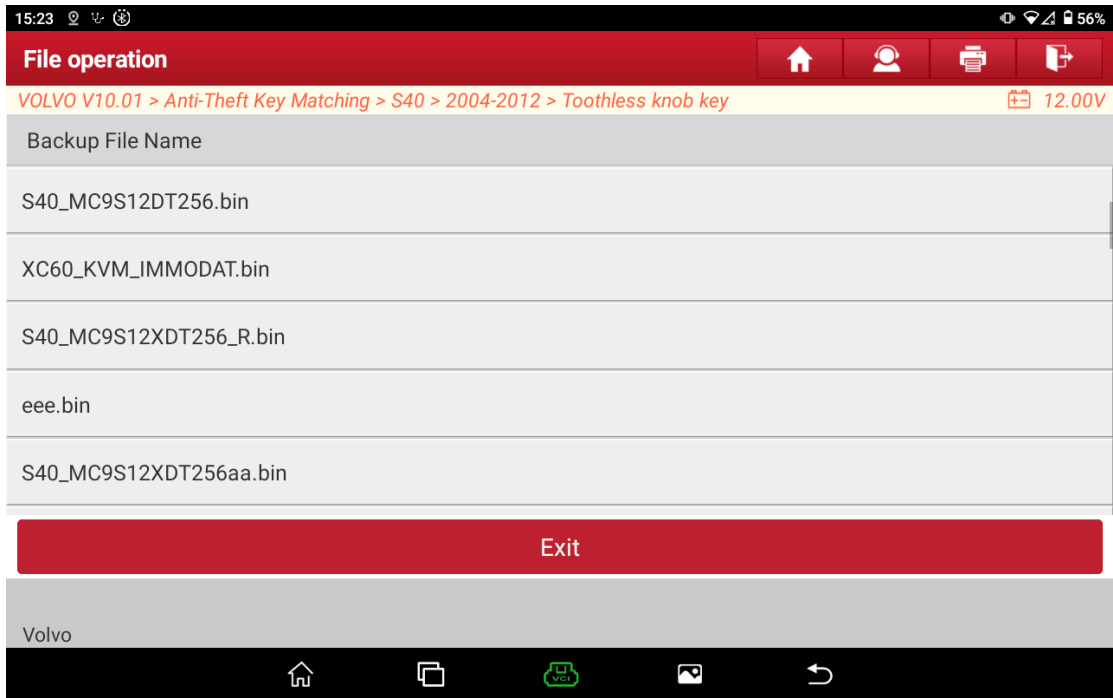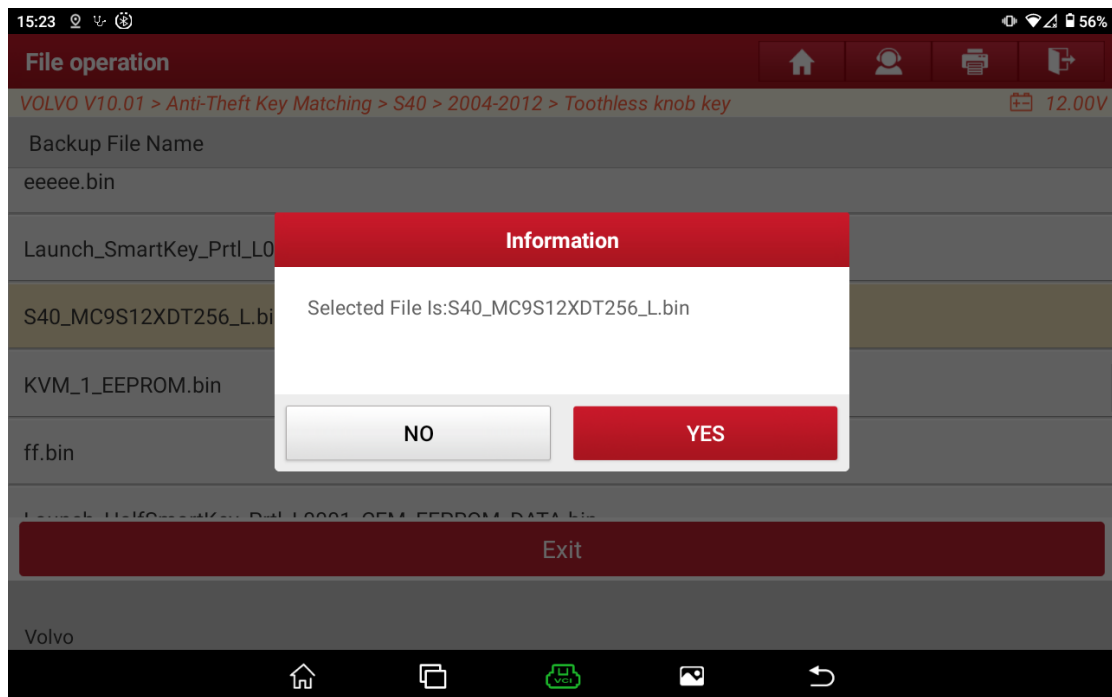4) **Select the first read data file, here we select file S40_MC9S12DG128.bin.**

Figure 33

Figure 34
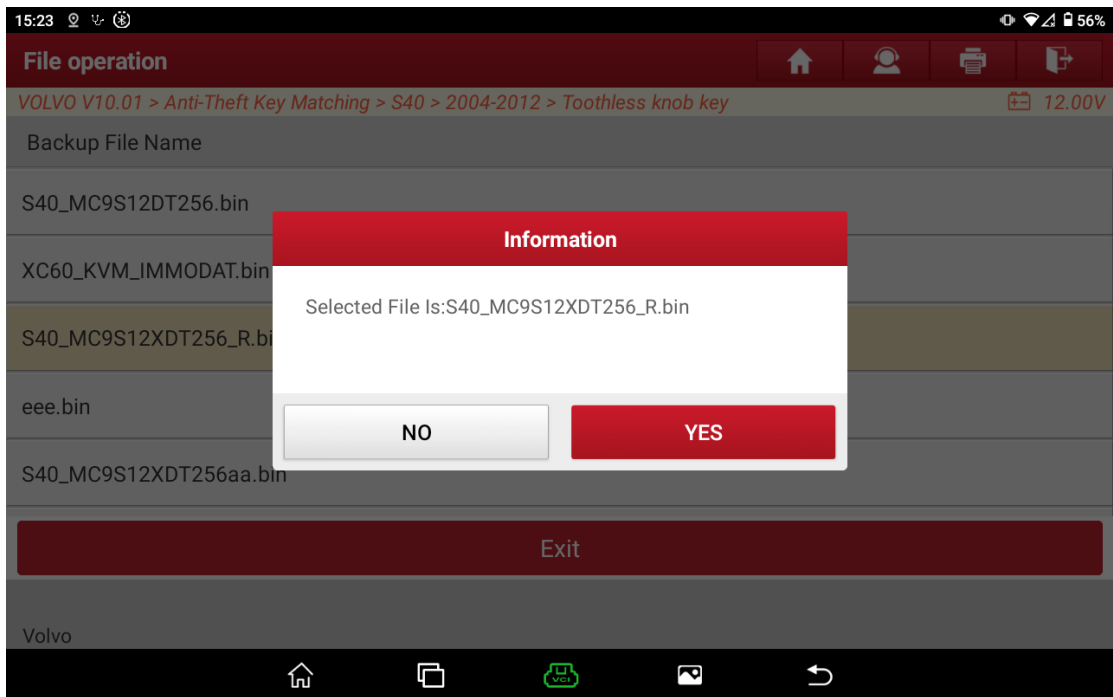
5) Select the second read data file, here we select file S40_MC9S12DT256.bin.

Figure 36

6) **Input the 8-digit remote control ID (The remote control ID and remote control data are on the key packaging shell when the key is purchased).**
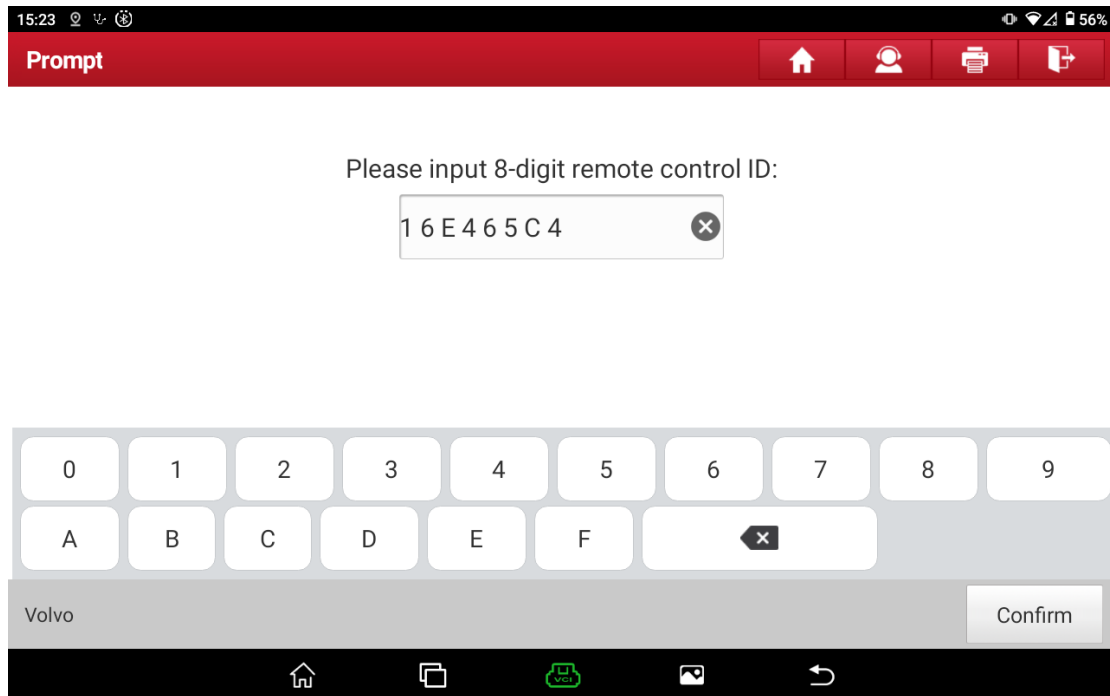

Figure 38

7) **Input the 24-digit remote control data (The example model is a 24-digit remote control, please select the key according to the actual situation), click [OK] to proceed to the next step.**
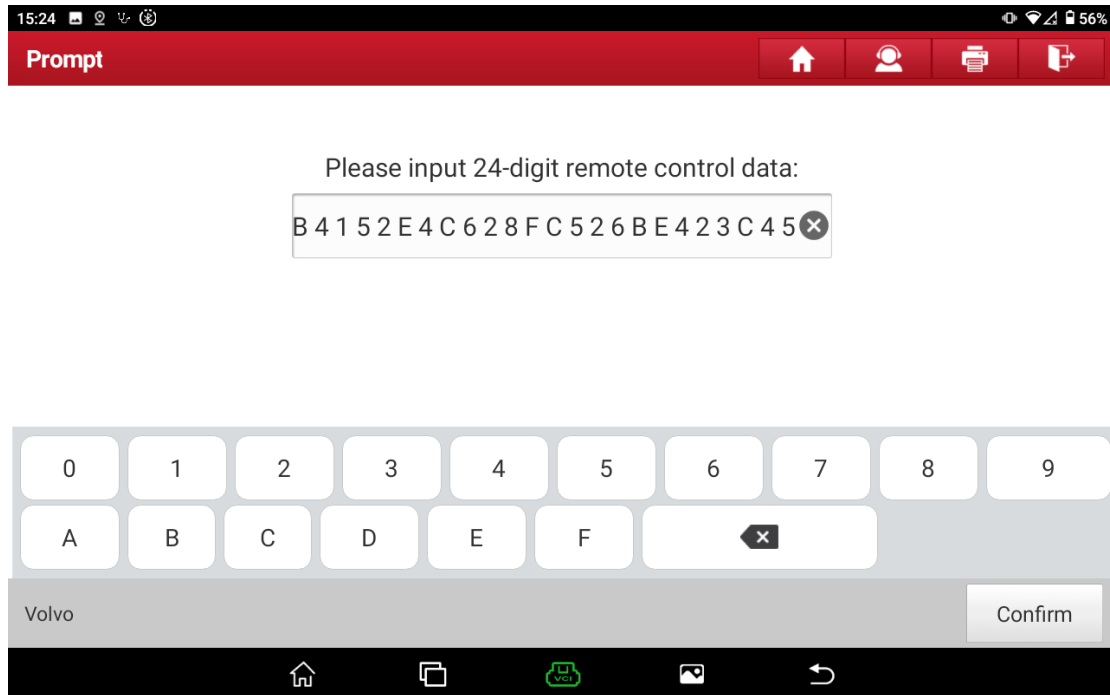

Figure 39

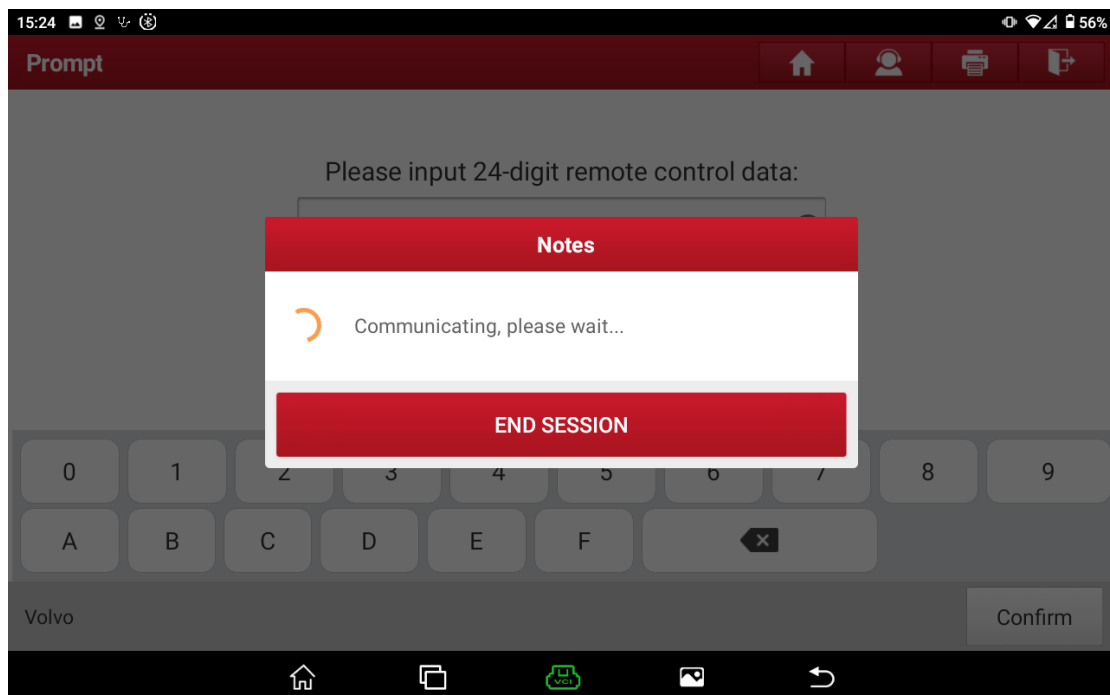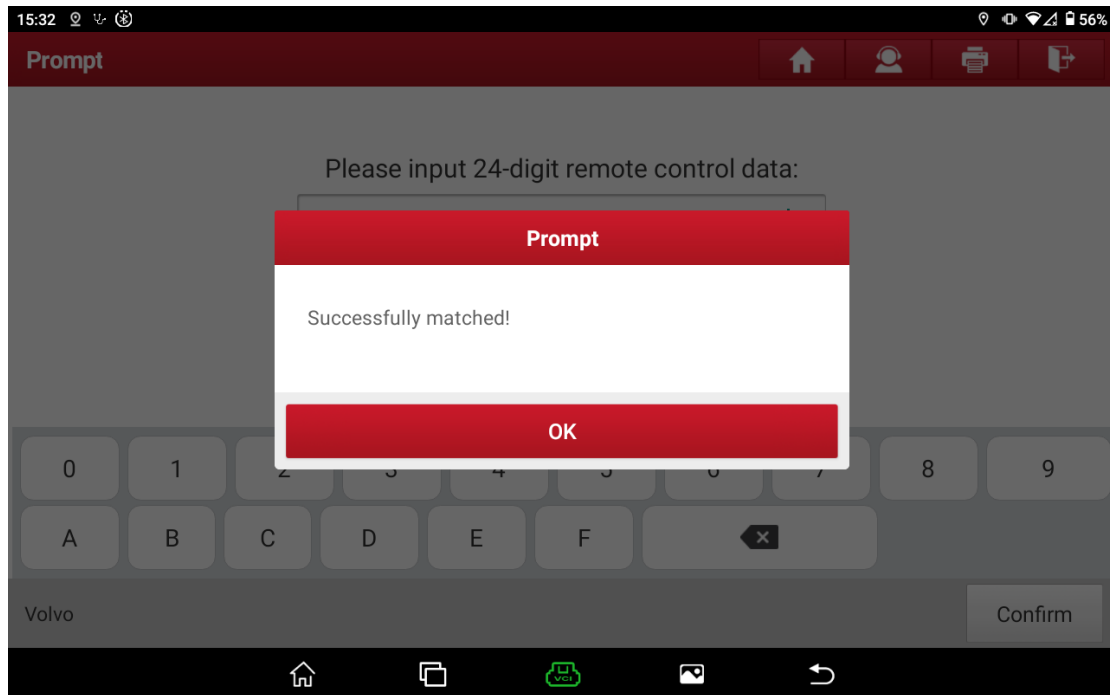8) **Wait for key matching, which takes about 1 minute.**

Figure 40

Statement:

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