Operating Instructions for Audi 5th Generation Engine Function

I Function introduction

Replace 5th Generation Engine, Read engine data via direct connection, online programming and coding.

II Condition requirements

Device requirements

PADIII/PAD V, X431 G3 Immobilizer with key adapter, X431 Engine direct wiring harness;

Software requirements

Audi V28.60 and above

III Steps

3.1 General process description:

1. First determine the type of the engine to be replaced, which can be determined through the label on ECU. In this time, we replace it with MED17.1;
2. Connect external Engine ECU with the device according to the method shown in Figure 1, and power on;
3. Read the Anti-Theft data of external Engine, for A6, A7, A8, the original Anti-Theft data can be read through the key;
4. Load or input the previously read external Engine Anti-Theft data and the original Anti-Theft data;
5. Install the Engine ECU on the vehicle and click Start replacement.

Figure 1

3.2 Detailed steps

3.2.1 Obtain the Anti-Theft data of external Engine

3.2.1.1 Enter [Special Functions], and click [Anti-Theft Function], as shown in Figure 2.
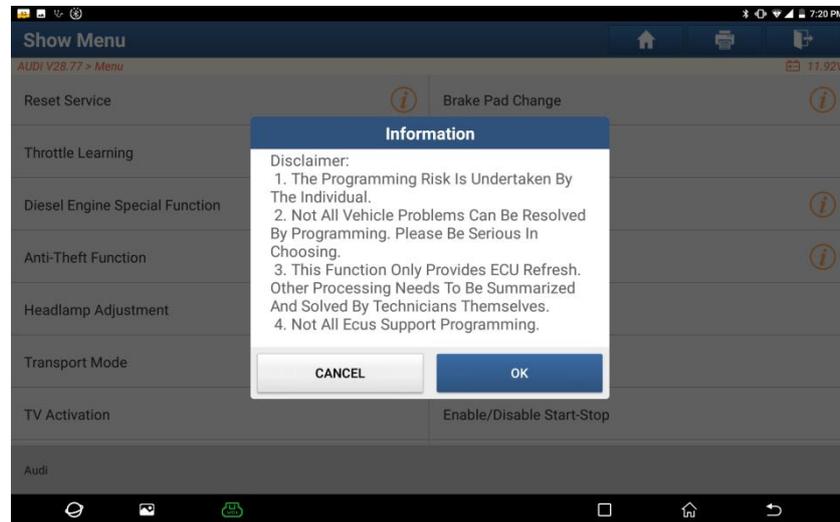

Figure 2

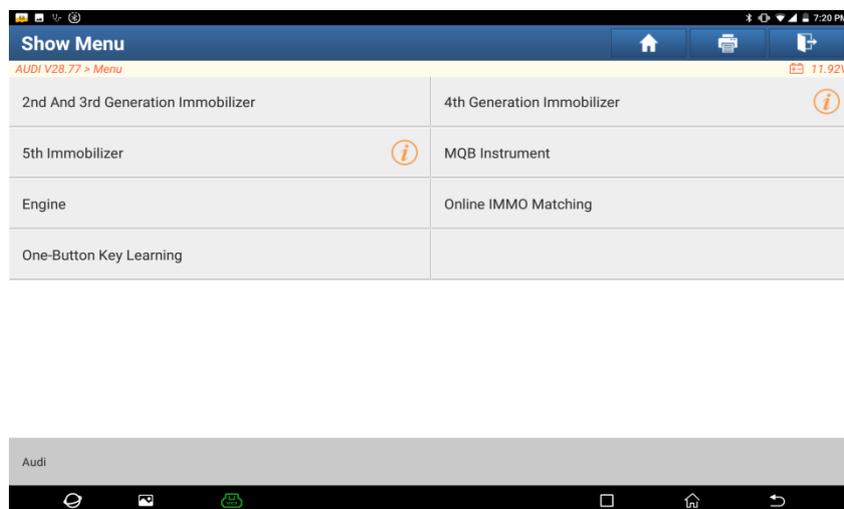3.2.1.2 Click [OK], as shown in Figure 3.

Figure 3

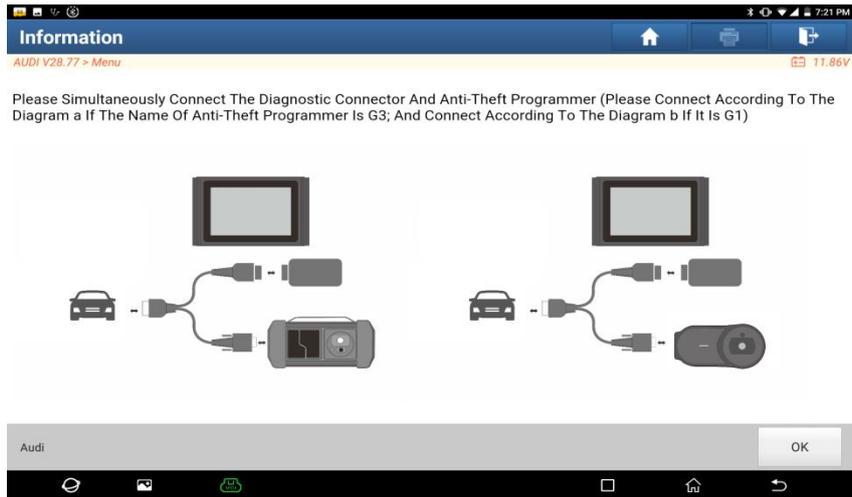3.2.1.3 Click [5th Generation Immobilizer], as shown in Figure 4.

Figure 4

3.2.1.4 Connect X431G3 Anti-Theft Programmer to the connector according to the diagram, and click [OK], as shown in Figure 5.
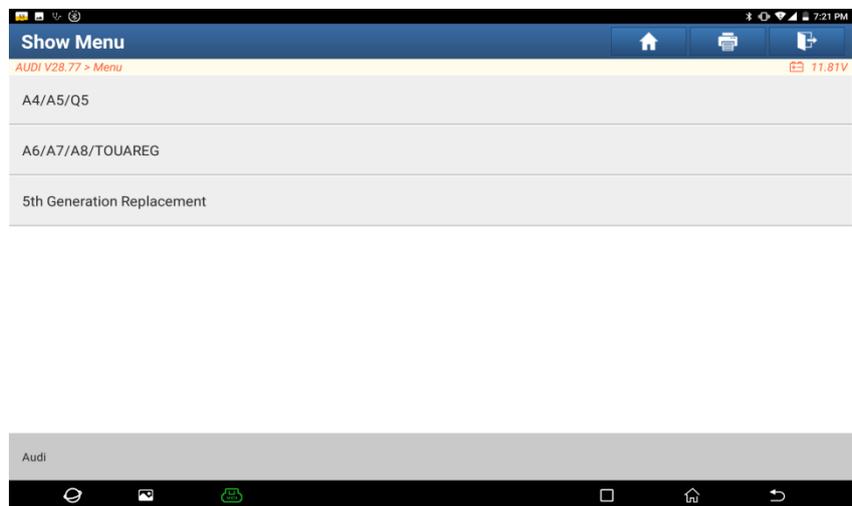

Figure 5

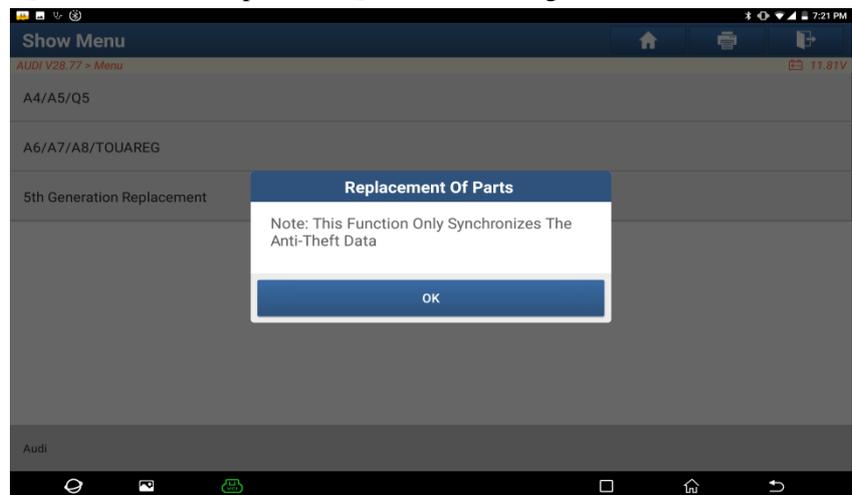3.2.1.5 Click [5th Generation Replacement], as shown in Figure 6.

Figure 6
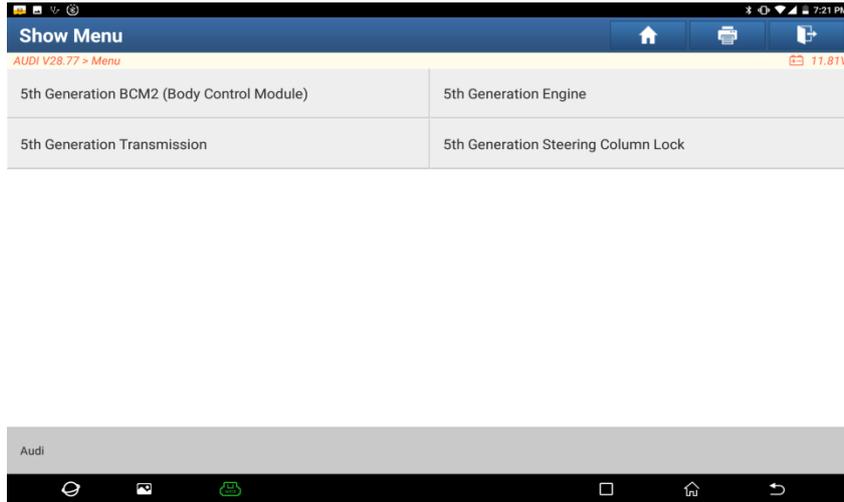
3.2.1.6 Click [OK], as shown in Figure 7.

Figure 7

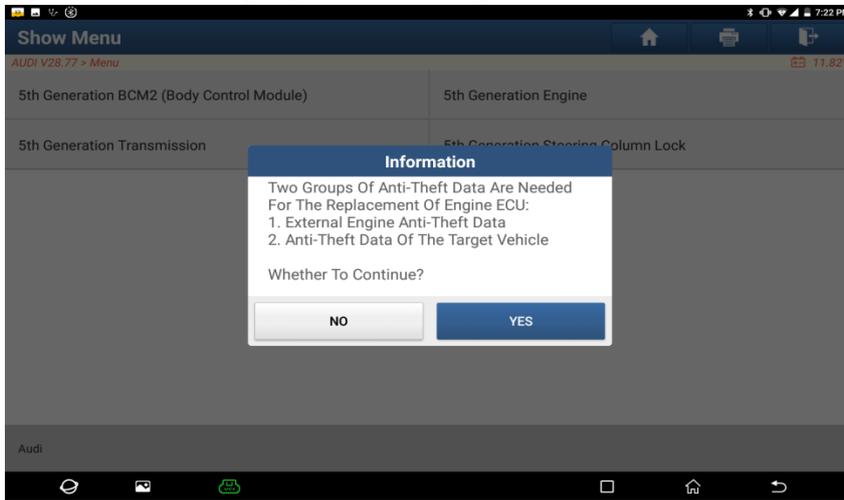3.2.1.7 Click [5th Generation Engine], as shown in Figure 8.

Figure 8
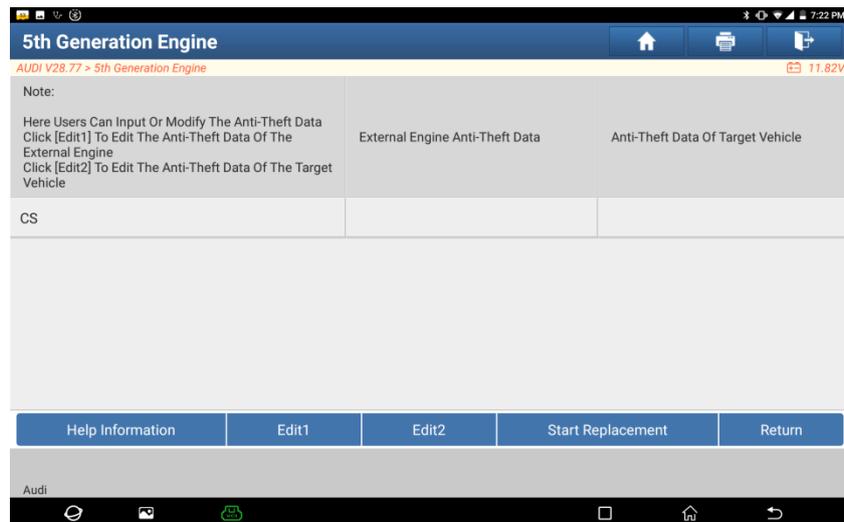
3.2.1.8 Click [OK], as shown in Figure 9.

Figure 9

3.2.1.9 Click [Edit 1], as shown in Figure 10. If you already have the Anti-Theft data of this

Engine, you can click [Yes] to load directly, if not, click [No], and we select [No] in this case, as shown in Figure 11.
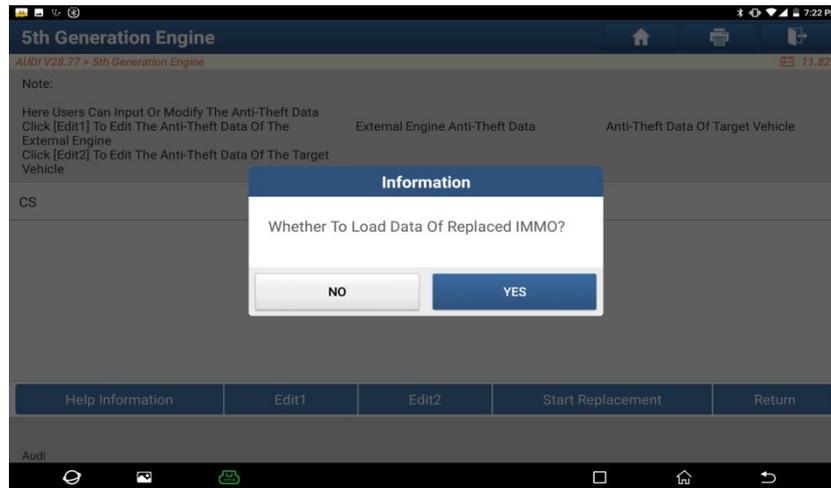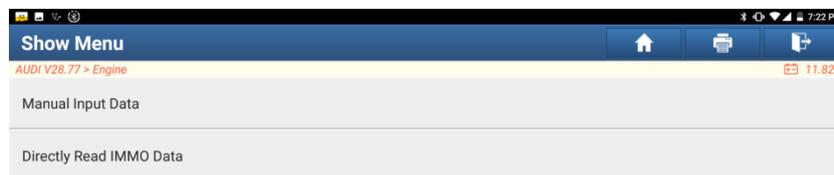

Figure 10

Figure 11

3.2.1.10 MED17/EDC17 Engine data can be read directly (by skipping Gateway to read), Siemens Engine data can be obtained by other methods and then select [Manual Input Data], click [Directly Read IMMO data], as shown in Figure 12. Then click [Yes] if using G3 to connect with Engine, if not, click [No]. We click [Yes] to read data in this case, as shown in Figure 13 and 14.
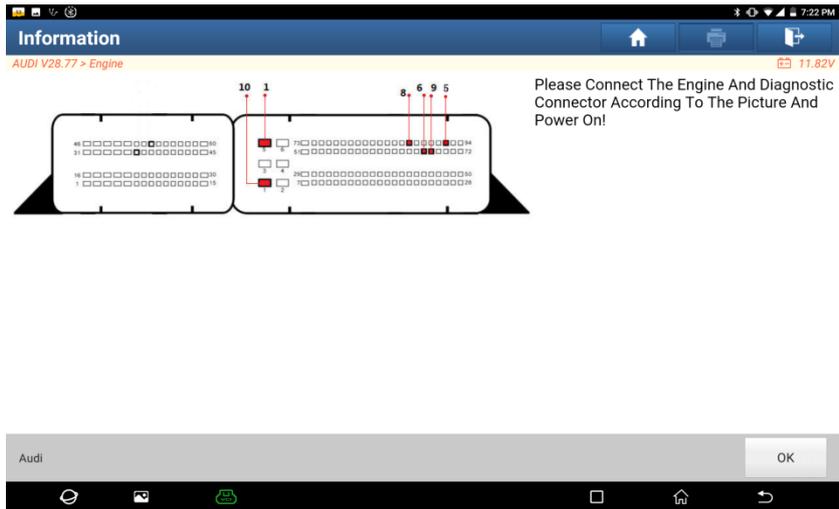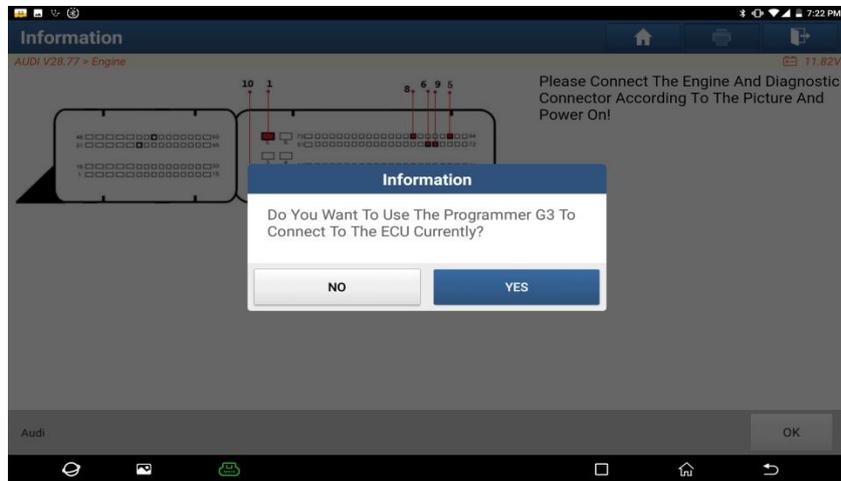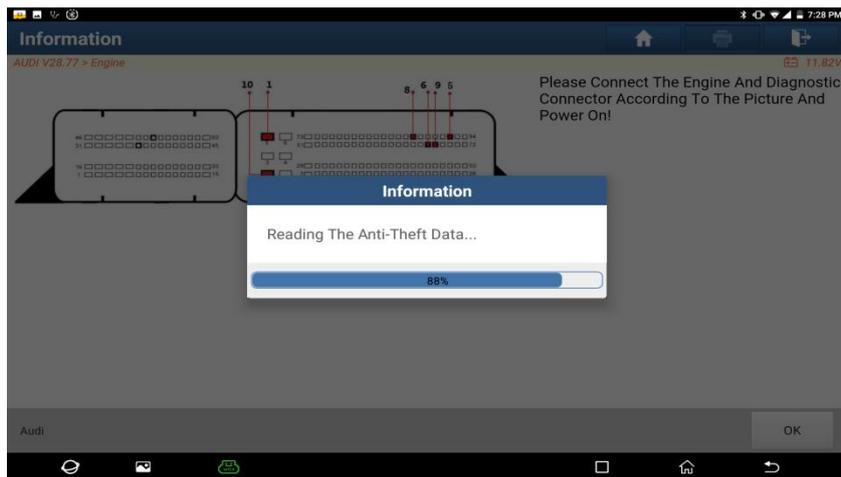
Figure 12

Figure 13

Figure 14

3.2.1.11 After reading completed, the data can be saved to a file, and it can be directly loaded when entering in the next time, as shown in Figure 15.
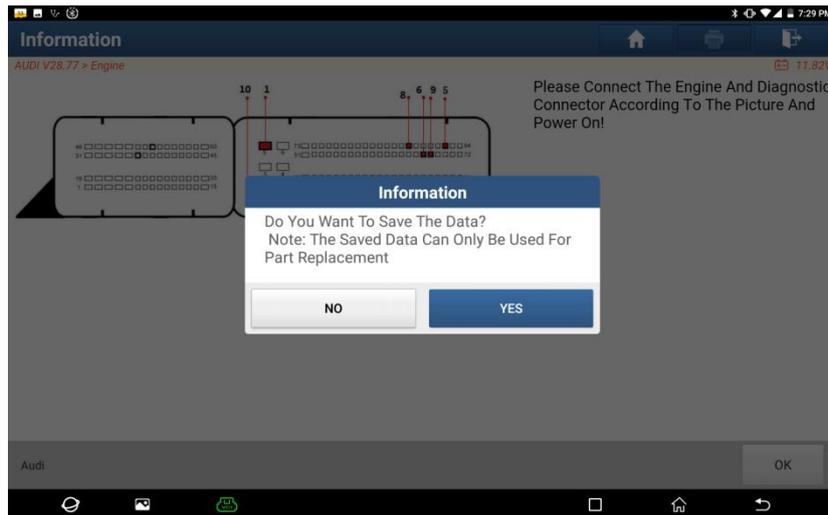
Figure 15

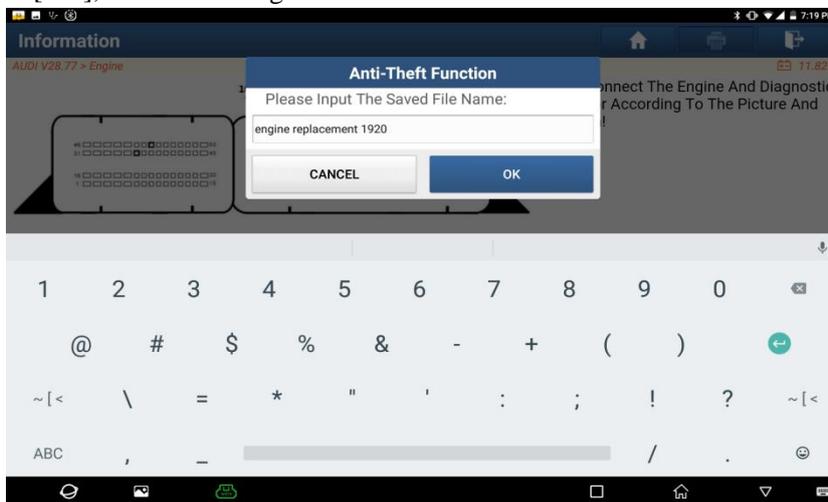3.2.1.12 Click [Yes], as shown in Figure 16.

Figure 16

3.2.1.13 Enter the file name, and then click [OK], as shown in Figure 17.
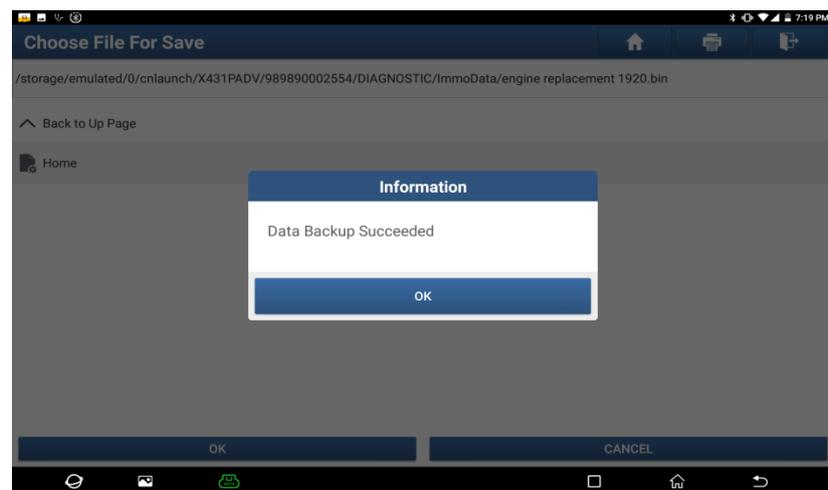

Figure 17

3.2.1.14 Click [OK], the device will display the Anti-Theft information of external Engine, and you can take a screenshot or take a photo to save, as shown in Figure 18.
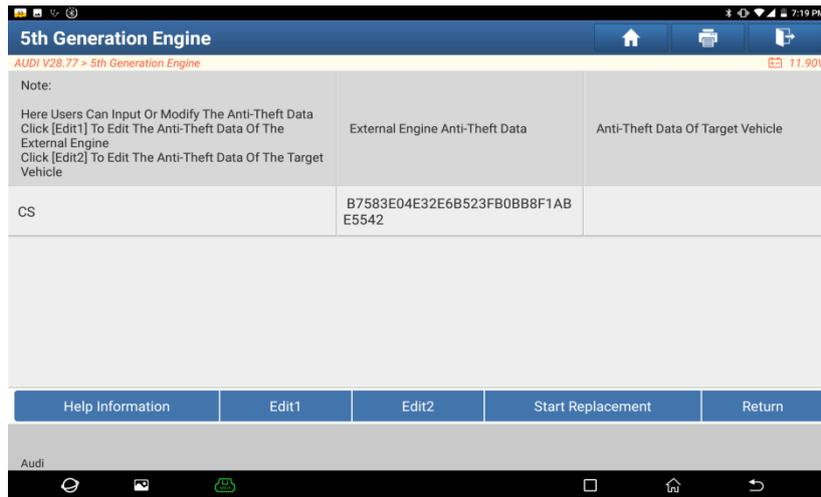
Figure 18

3.2.2 Steps of Start Replacement

Note: Before replacement, enter Quick Test to scan the original system. If the original Engine ECU can communicate normally, you can enter [System Selection] -> [01 Engine ECU] to read information version and take pictures to save it.
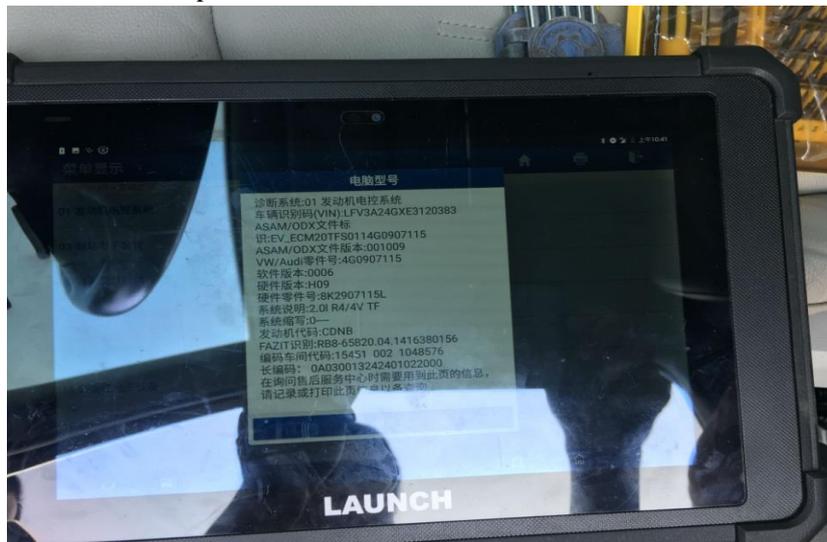

Figure 19

3.2.2.1 Click [Edit 2], select the corresponding model, as shown in Figure 20, and then click [Original Vehicle Key Obtained], as shown in Figure 21, insert the key into the keyhole or place it to the key sensing area, and turn on the ignition switch to illuminate the instrument. If all keys are lost, turn on the hazard warning flasher and press the brake, and click [OK] for the next step, as shown in Figure 22, at this time the device will read the Anti-Theft data of BCM2, as shown in Figure 23.
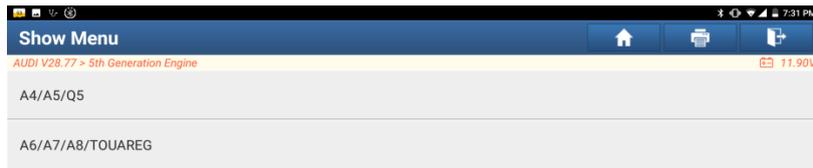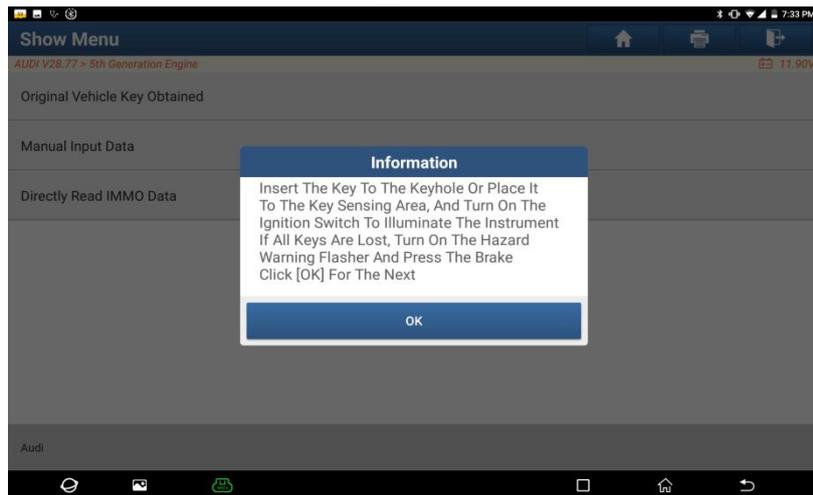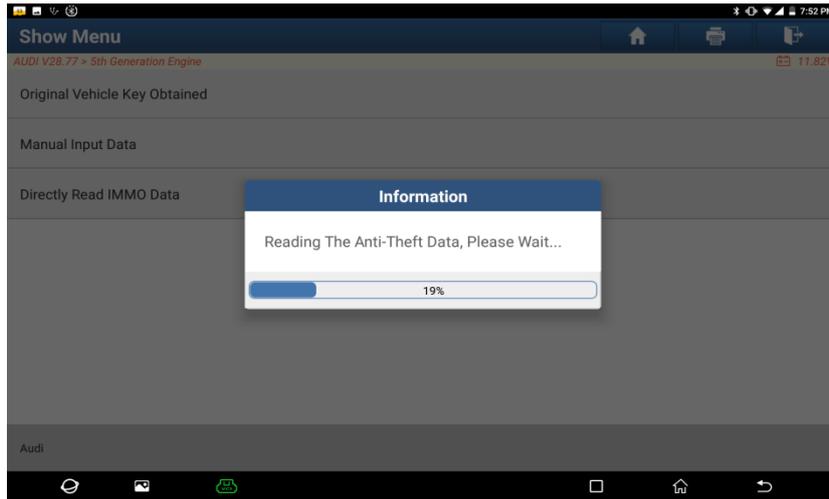
Figure 20

Figure 21

Figure 22

Figure 23

3.2.2.2 After the reading is completed, follow the prompts to place the original vehicle key into X431 Immobilizer programmer box, as shown in Figure 24.
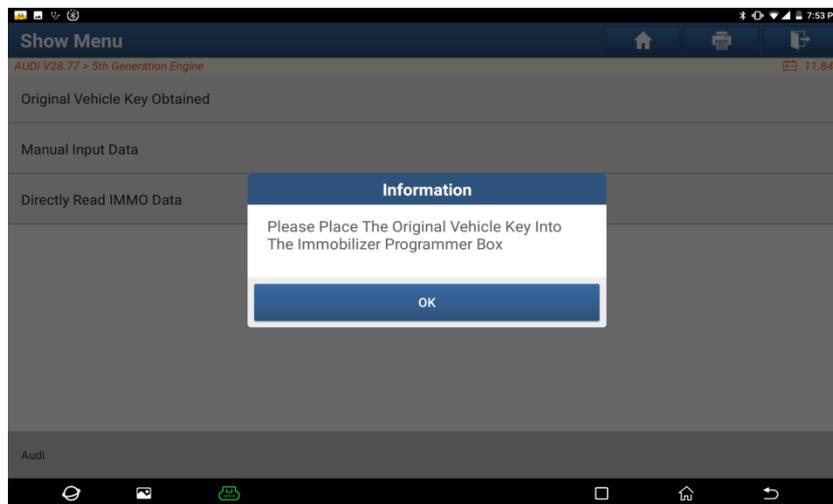

Figure 24

3.2.2.2 Click [OK], the device will display the Anti-Theft data of two ECUs, and you'd better take photos and save the two data, as shown in Figure 25.
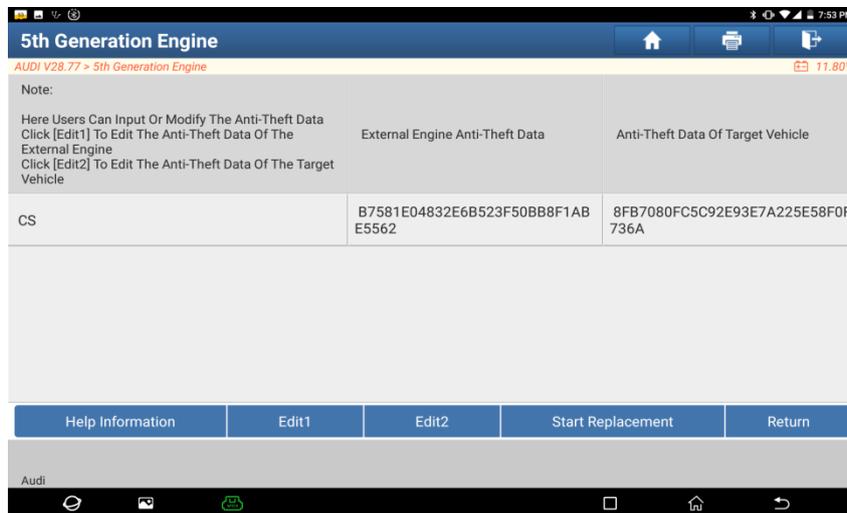
Figure 25

3.2.2.3 Click [Start Replacement], at this time, you need to install the external Engine on the target vehicle, as shown in Figure 26.
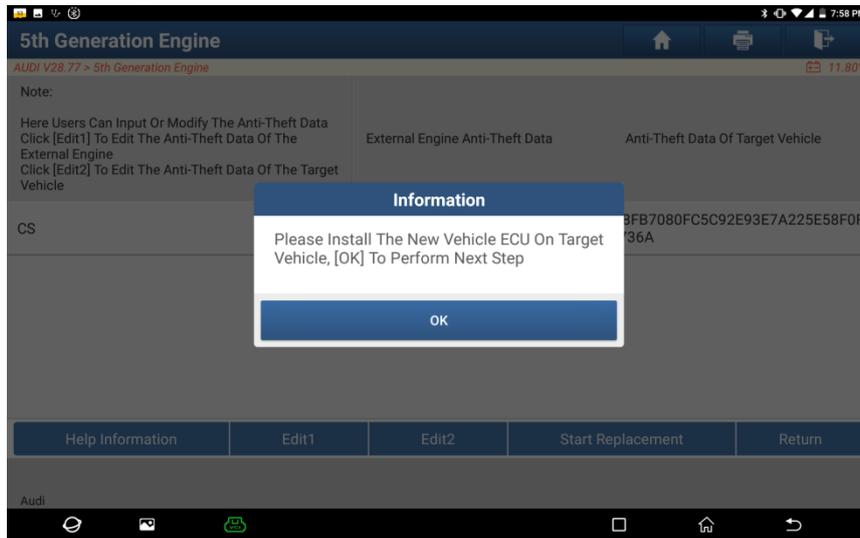

Figure 26

3.2.2.4 The vehicle Engine ECU is under the wiper water tank, install the external Engine on the target vehicle, as shown in Figure 27 and 28.

Figure 27

Figure 28

3.2.2.5 After the Engine is replaced, click [OK], and it will prompt Replacement Succeeded, as shown in Figure 29. At this time, the Anti-Theft data of target vehicle has been synchronized to the external Engine.
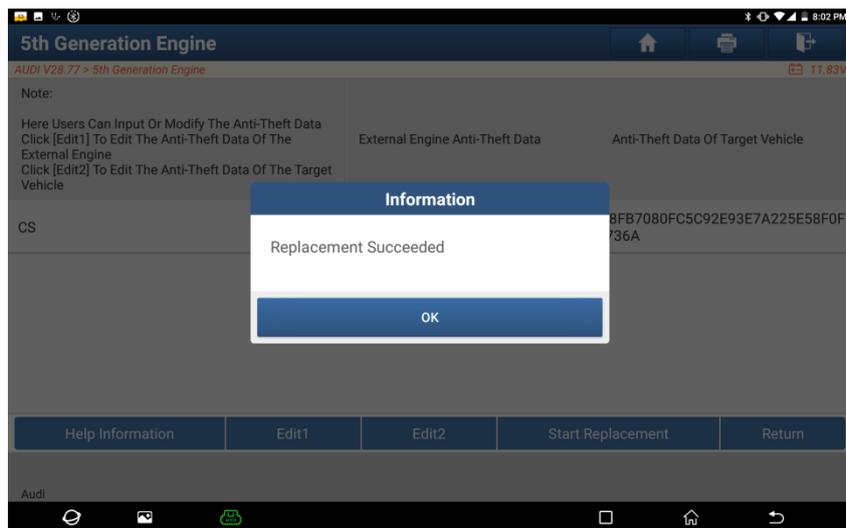

Figure 29