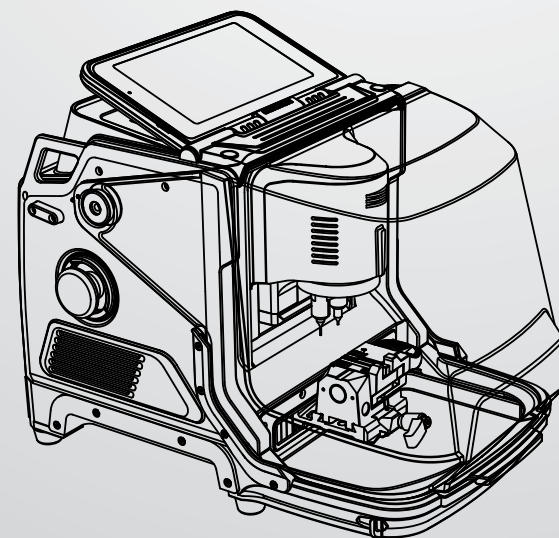


# CONDOR

Automatic Key Cutting Machine  
XC-MINI PLUS II

## User Manual

V1.0



**Xhorse**®



**XC-MINI PLUS II**  
Automatic Key Cutting Machine

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## 1. Safety precautions and warnings

To avoid injuries to operators and damages to the machine, please read this product user manual carefully before you start, and follow the safety notes shown below:

- Always use the machine under safe environment.
- Wear protective goggles that are in line with ANSI standard.
- Put down the protective shield when the machine is working.
- Do not have clothes, hair, hands and other tools close to the machine when it is working.
- DO not leave the machine unattended when it is working.
- Do not use a damaged or loose socket.
- Unplug the machine when it is not in use for a long time.
- Do not put the machine in a place that is damp, greasy and dusty.
- Do not put things like tool or containers on the machine.
- Put the machine on a flat and firm surface .
- Keep the machine dry and clean.
- Unplug the machine under unusual circumstance.

## 2. General information

### 2.1 Machine description

Dear customers, thank you for choosing XC-MINI PLUS II automatic key cutting machine. The CONDOR XC- MINI PLUS II automatic key cutting machine is a carefully built for locksmiths around the world. It is small in size, light in weight, and convenient to carry. It can quickly and accurately copy and process all kinds of automobile and household mechanical keys.

To avoid injuries and financial loss, please carefully read this manual through before you start to operate the machine. And we kindly remind you to keep this manual properly for future reference.

### 2.2 Machine feature

CONDOR XC-MINI PLUS II is a new generation of portable key CNC processing machine, the product has the following characteristics:

- Built-in database
- Support APP Control
- Intelligent operating system, equipped with eight-core CPU
- Smart LED indicator
- Angle adjustable LCD touch screen
- Support WiFi and Bluetooth
- Support multiple languages<sup>①</sup>
- Support engraving function
- All-aluminum body structure
- High precision ball screw
- High rigidity cross rail
- Cutter and probe work in parallel
- Support Multiple Clamps
- Support vehicle/motorcycle/residential(Sided/Track/Tibbe/Dimple) Key<sup>②</sup>

<sup>①</sup> Only for the global version

<sup>②</sup> Part of special keys are required to use optional clamp

### 3. Product packaging checklist

|                     | Name                       | Sample picture                                                                      | Quantity | Description                                |
|---------------------|----------------------------|-------------------------------------------------------------------------------------|----------|--------------------------------------------|
|                     | Machine                    |    | 1        | Key cutting machine                        |
| Support clamp type  | Clamp M5 and link stopper  |    | 1        | Cutting clamp                              |
|                     | Clamp M3                   |    | 1        | FO21/SX9key clamp                          |
|                     | Clamp M1 (Optional)        |    | 1        | Cutting clamp                              |
|                     | Clamp M2 (Optional)        |    | 1        | Cutting clamp                              |
|                     | Clamp M4 (Optional)        |   | 1        | Household key clamp                        |
|                     |                            |                                                                                     |          |                                            |
| Support accessories | 2.5mm cutter               |  | 1        | Cutting tool (Ø2.5xØ6x40L)                 |
|                     | 1.5mm cutter               |  | 1        | Cutting tool (Ø1.5xØ6x40L)                 |
|                     | Probe                      |  | 2        | Probing tool (Ø1.0xØ6x40L)                 |
|                     | 2mm+4mm hexagon bar wrench |  | 1        | Changing probes and cutters, keys fixation |

|                    |                                          |                                                                                       |   |                                                   |
|--------------------|------------------------------------------|---------------------------------------------------------------------------------------|---|---------------------------------------------------|
|                    | Brush                                    |    | 1 | Cleaning tool                                     |
| Support power cord | 1.5m Power cord of China standard        |    | 1 | connect to power                                  |
|                    | 1.5m Power cord of UK standard(Optional) |    | 1 | connect to power                                  |
|                    | 1.5m Power cord of US standard(Optional) |    | 1 | connect to power                                  |
|                    | 1.5m Power cord of EU standard(Optional) |    | 1 | connect to power                                  |
|                    | Product quality certificate              |   | 1 | Factory inspection report and packing list        |
|                    | User manual                              |  | 1 | Machine assembly/adjustment/operation instruction |

#### Notes:

- Replace cutters regularly to ensure cutting efficiency.

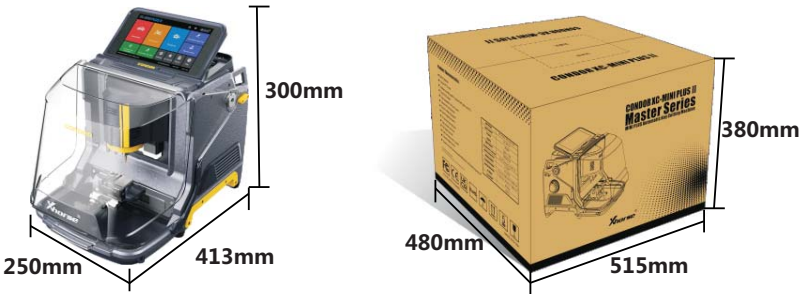
4. Overview

4.1 Structure diagram



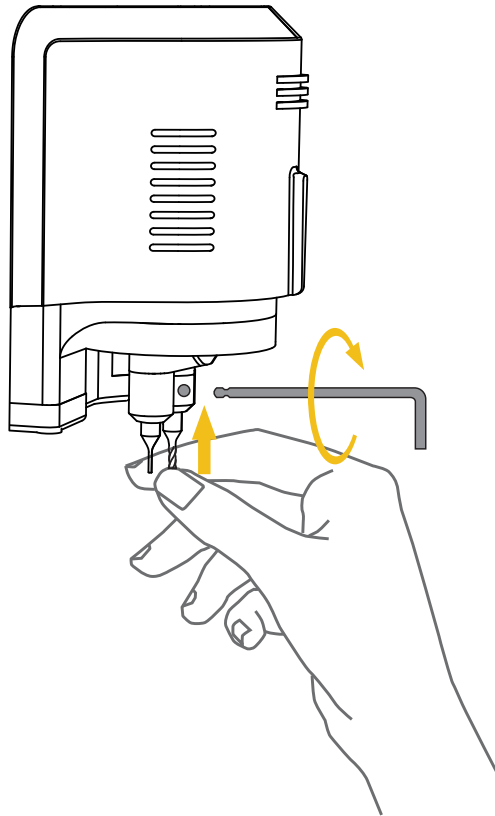
4.2 Specification

|                         |                                 |
|-------------------------|---------------------------------|
| Input Voltage           | 90-264V AC/ 24V DC              |
| Input Frequency         | 47~63Hz                         |
| Consume                 | 200W                            |
| Display                 | 1280×720                        |
| Spindle Speeds          | 10000rpm                        |
| Communication interface | Dual Frequency WiFi & Bluetooth |
| Working Temperature     | 0~50℃                           |
| Working Humidity        | 10~90%                          |
| Packing Dimensions      | 515×480×380 mm                  |
| Machine Dimensions      | 250×413×300 mm                  |
| Net Weight              | 19.5Kg                          |
| Gross Weight            | 24Kg                            |



## 5. Installation instruction

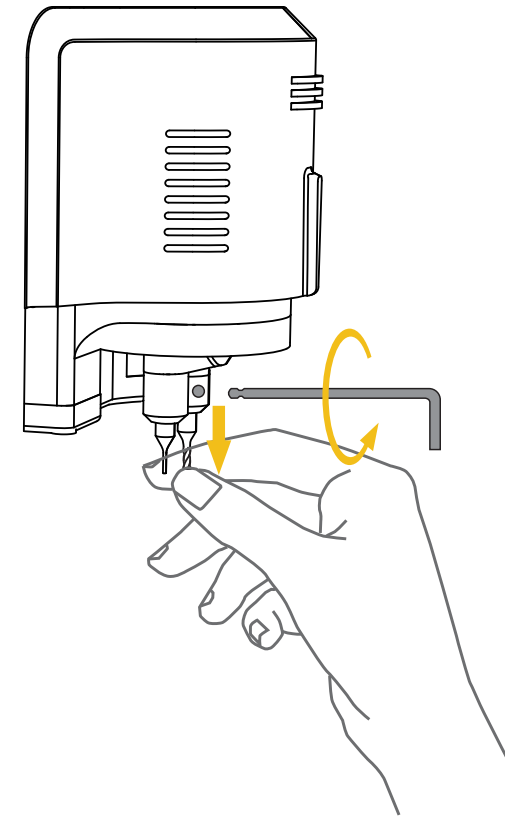
### 5.1 Cutter installation



Installation steps:

- 1) Put the cutter into the mounting hole and make sure the cutter goes to the limit of top.
- 2) Use the cutter tightening wrench to clockwise fix the cutter.

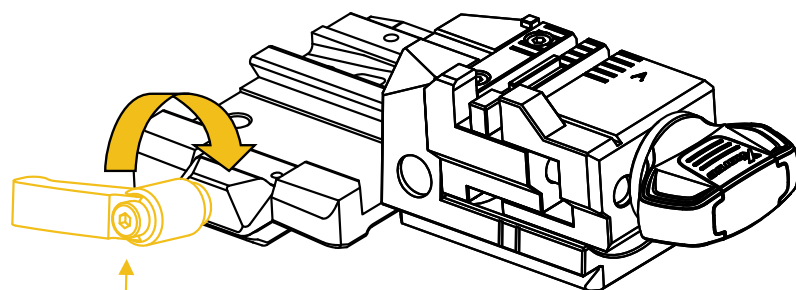
### 5.2 Cutter uninstallation



Uninstallation steps:

- 1) Counter-clockwise unscrew the cutter manually.
- 2) Take the cutter off when it is loose.

### 5.3 Clamp installation



LOCKING WRENCH

#### Installation steps:

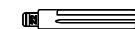
- 1) Loosening the clamp tightening wrench by turning it counter-clockwise to the left.
- 2) Select the correct clamp and slide in the clamp to the clamp holder and push it to the limit of left.
- 3) After the clamp is put in the clamp platform, turn the clamp tightening wrench clockwise for fix it.

### 5.4 Pictures of clamps



Clamp M5

Supporting type (as picture below)



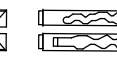
Standard single/double sided key



4 Track external



2 Track external



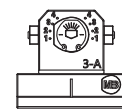
4 Track internal



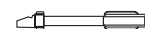
Channel track



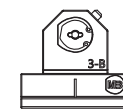
Clamp M3



Support type (FO21 example)



FO21



Support type (SX9 example)

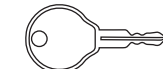


SX9



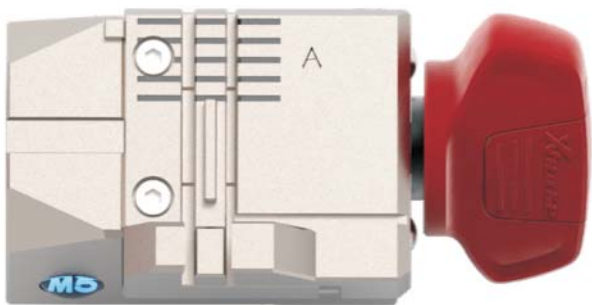
Clamp M4

Supporting type (as picture below)

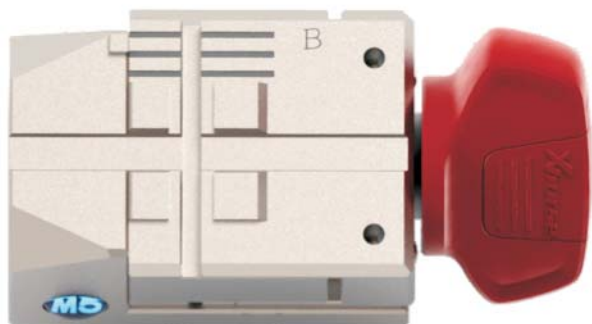


## 5.5 Clamp M5 instruction

The device adopts M5 clamp with two sides of A and B. Users can turn the clamp surface to cut according to cutting needs, it's no need to repeated install and uninstall to replace different clamps. Here are the method of using the M5 clamp.



- 1) Loosen the "key lock knob" counterclockwise to make the right slider of the clamp to the right limit.

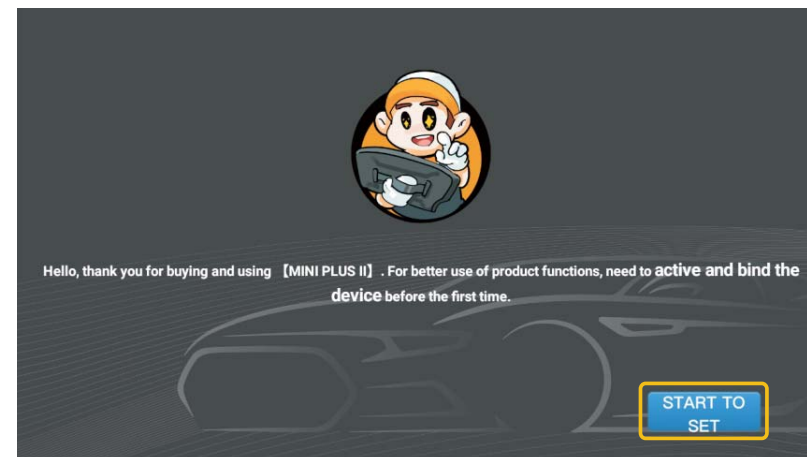


- 2) Turn the movable module clockwise, and turn the clamp from side A to side B. Tighten the "key lock knob" clockwise to lock the clamp.

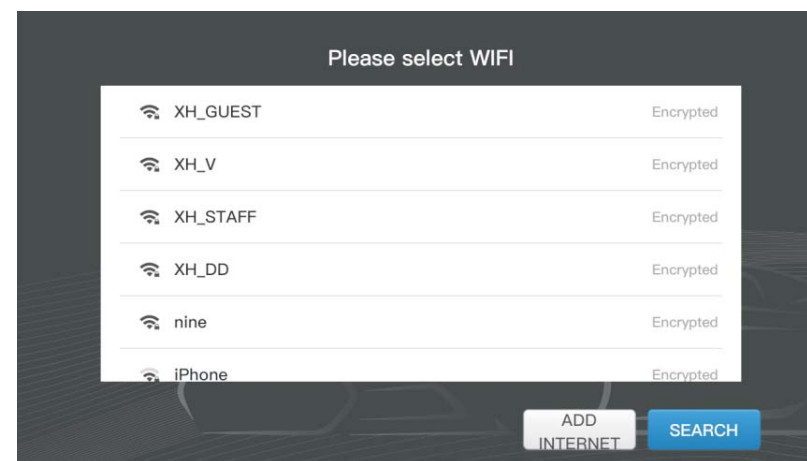
## 6. Operation instructions

### 6.1 Activate the machine

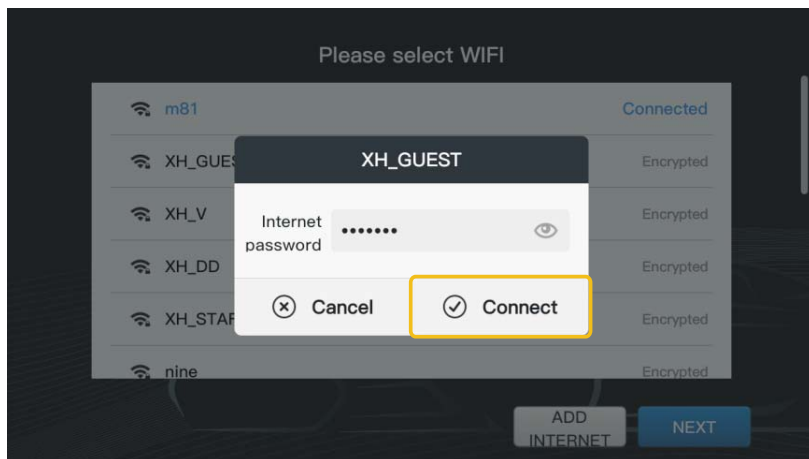
- 1) Select the machine language.



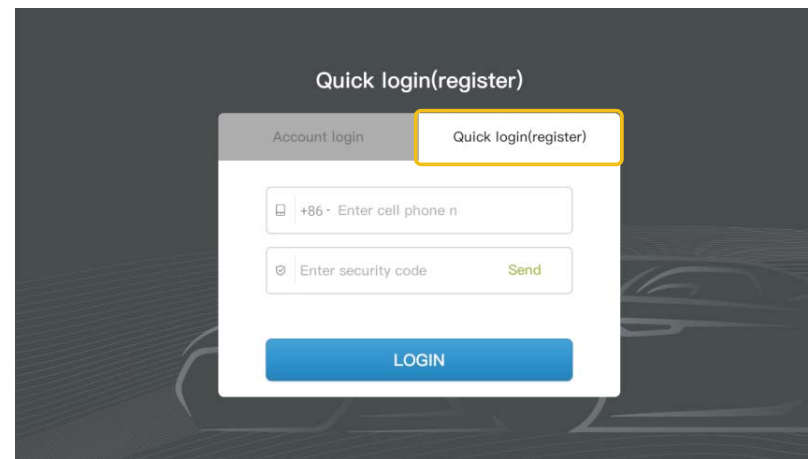
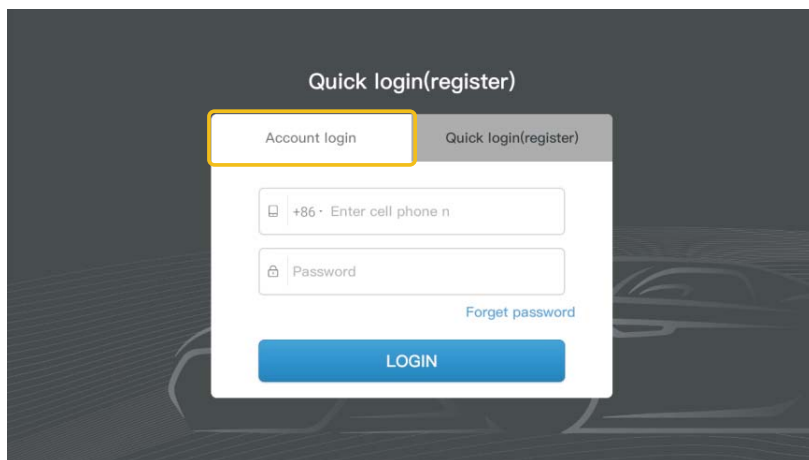
- 2) After the machine is connected to the power cord, turn it on, enter the main interface, and click the "START TO SET" button.



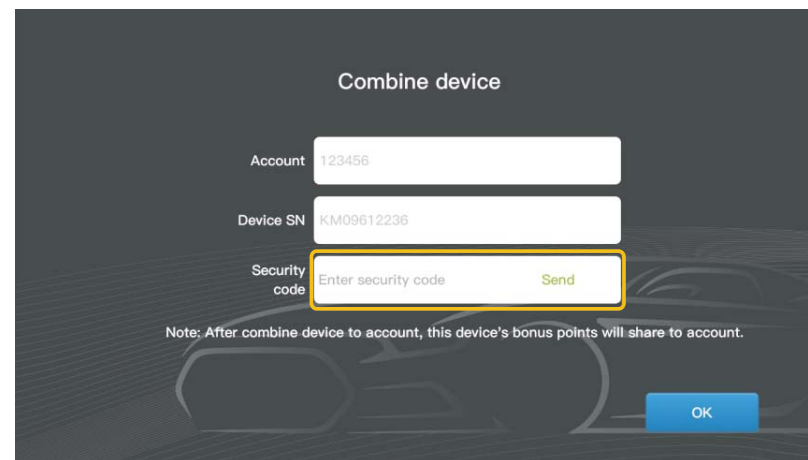
- 3) Click to select a WiFi network.



4) After entering the password, click the “Connect” button, and click “NEXT” below after success. (Login the XHORSE account)

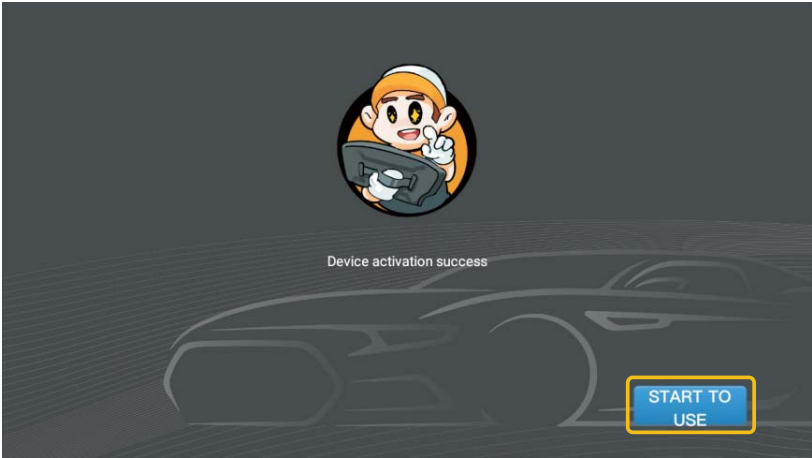


5) Users can choose account login or quick login (new users need to choose quick login and register).



6) After logging in successfully, click “Send” to bind the device.

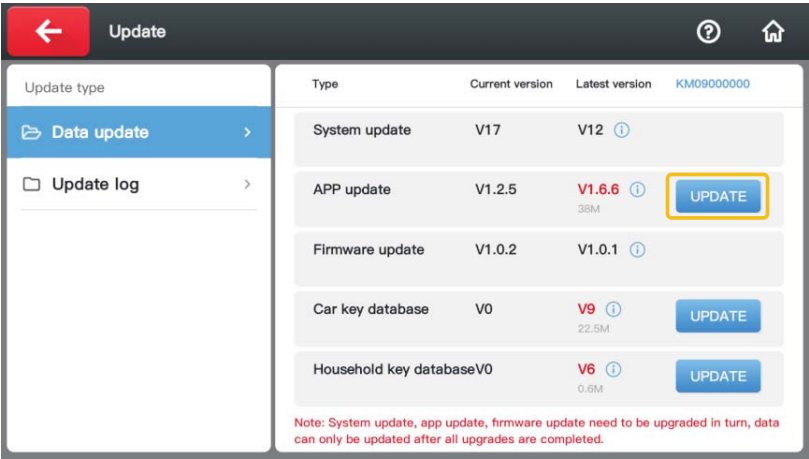
6.2 Online upgrad



7) The device is successfully activated, click “START TO USE”.



1) After the machine is connected to the Internet, click “Update” in the upper right corner of the main page.



2) Click the“UPDATE” button on the right to upgrade.

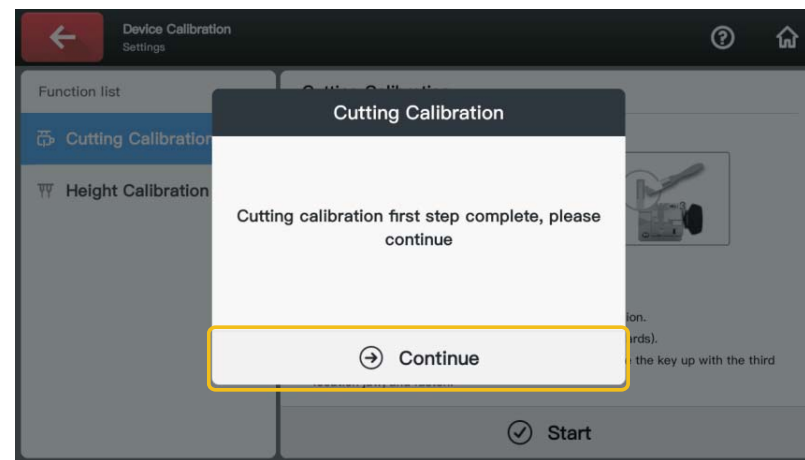
### 6.3 Instructions for operation the machine

The machine adopts Android system, no need for “Height Calibration” and “Clamp Calibration”, just move the probe and cutter to the top.

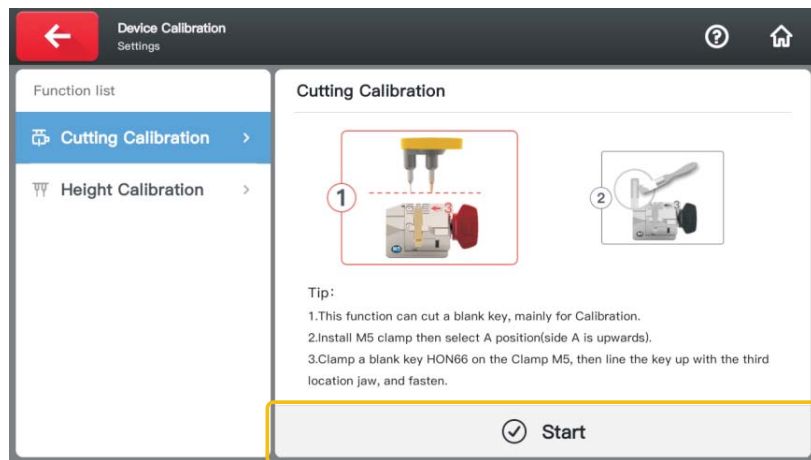
#### 6.3.1 Cutting calibration



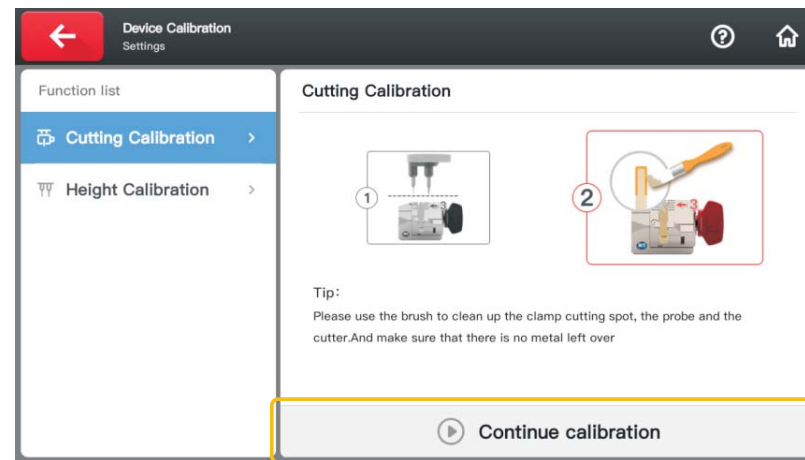
1) Enter the operation main interface and click on “Settings”.



3) Operate by following the tips and click on “Continue”.



2) Click on “Cutting Calibration”.



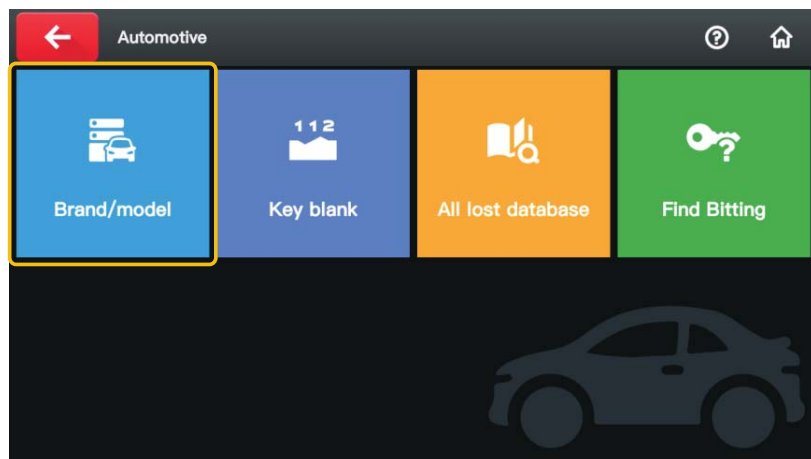
4) Clean the cutter and probe and working area with a brush. Click on “Continue calibration” and the now calibration has finished.

## 6.4 Automotice/Motorcycle Decode key

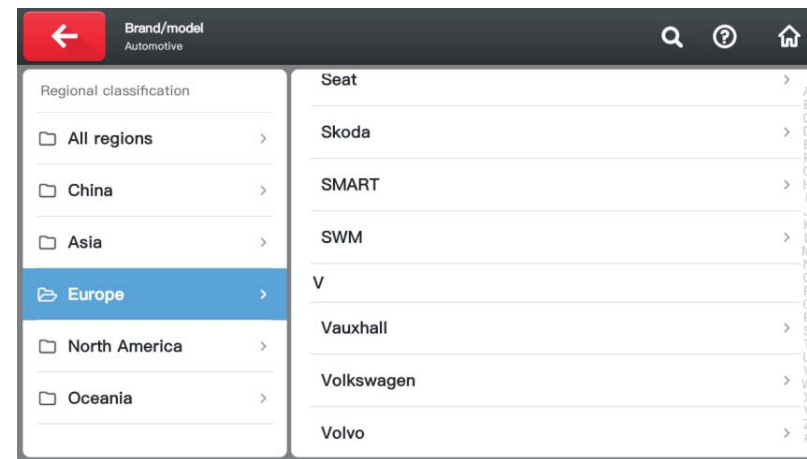
### Method 1 (Brand/model)



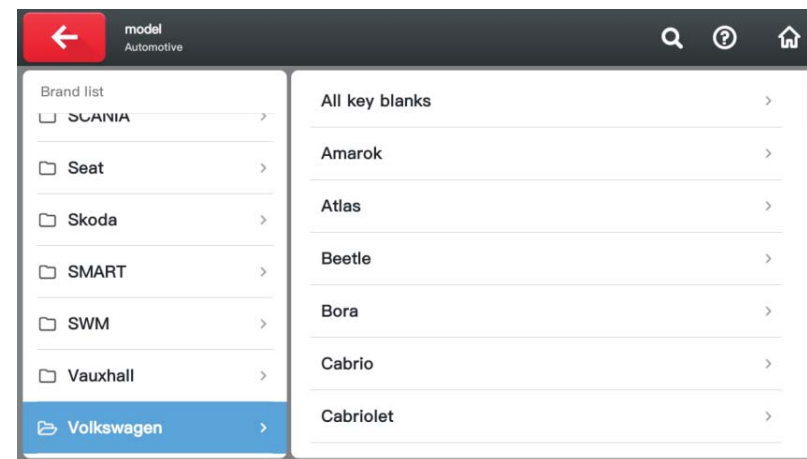
1) Enter the "Automotive/Motorcycle Key" interface.



2) Click the "Brand/model" button.

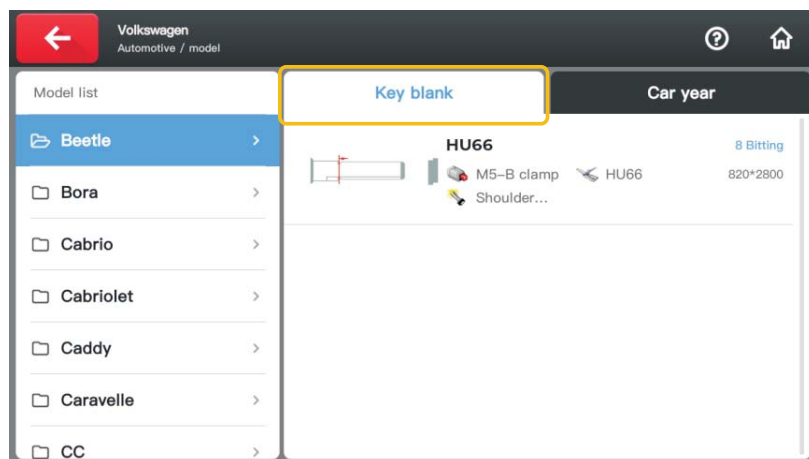


3) Select the manufacturer or click the "search button" to enter the brand or search by letter.

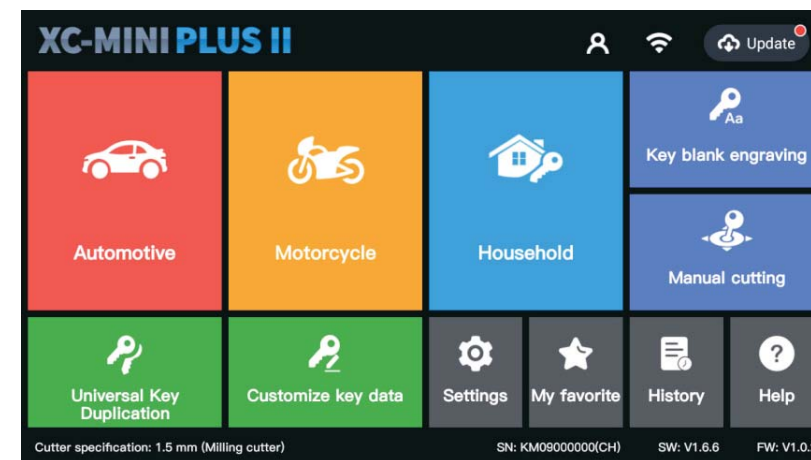


4) Select the model or click the "search button" to enter the model search.

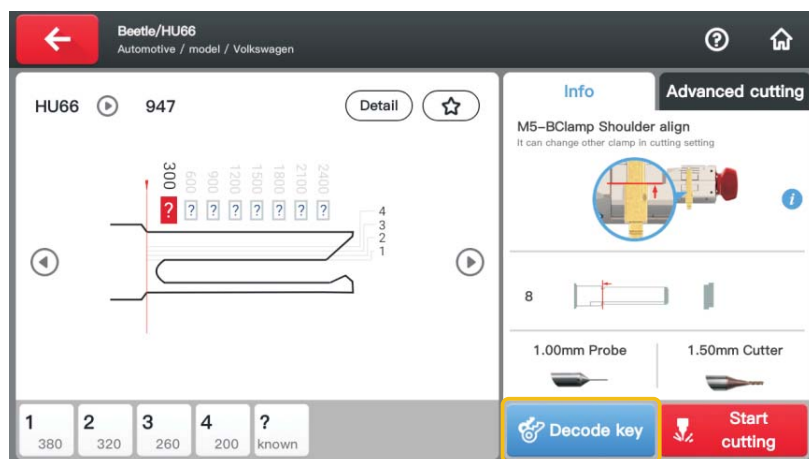
## Method 2 (Key blank)



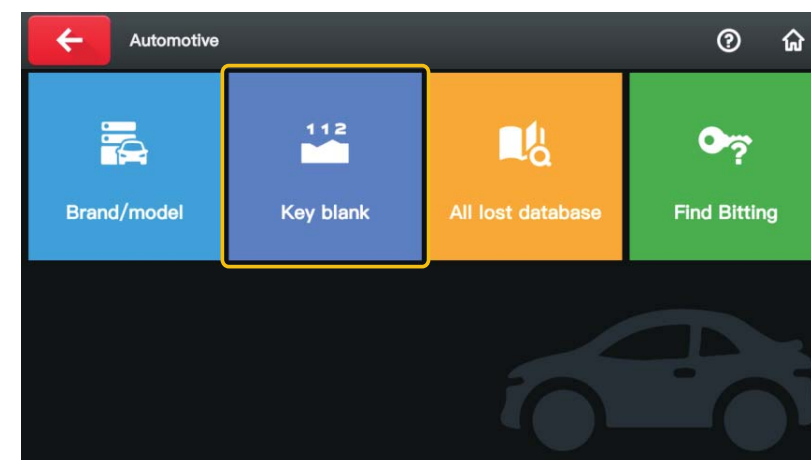
5) Select the key blank.



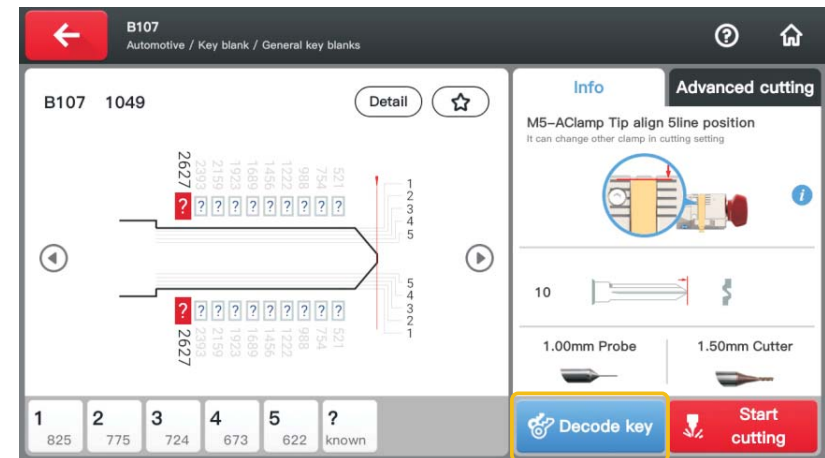
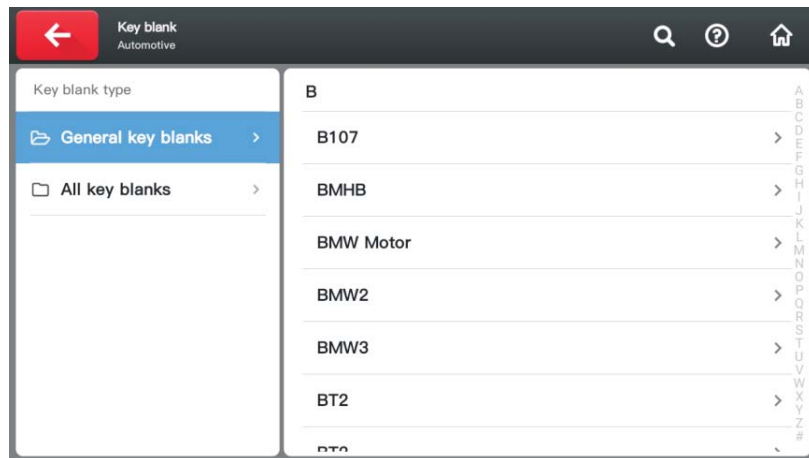
1) Enter the "Automotive/Motorcycle Key" interface.



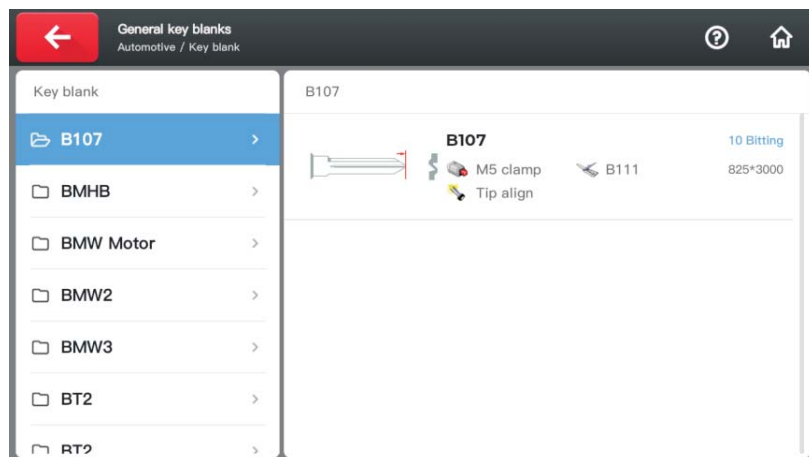
6) After setting the key blank according to the diagram on the right and click "Decode key".  
(The clamp picture on the Info can be enlarged to see more clearly.)



2) Click "Key blank" button.

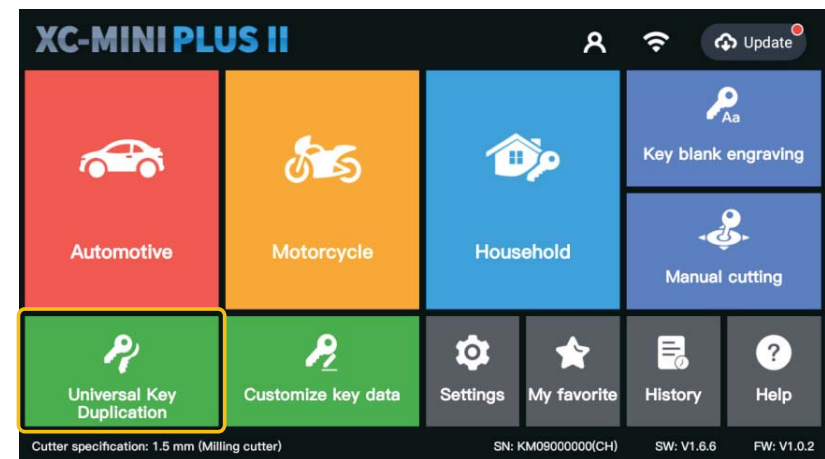


4) Install the key blank according to the diagram on the right and click "Decode key".

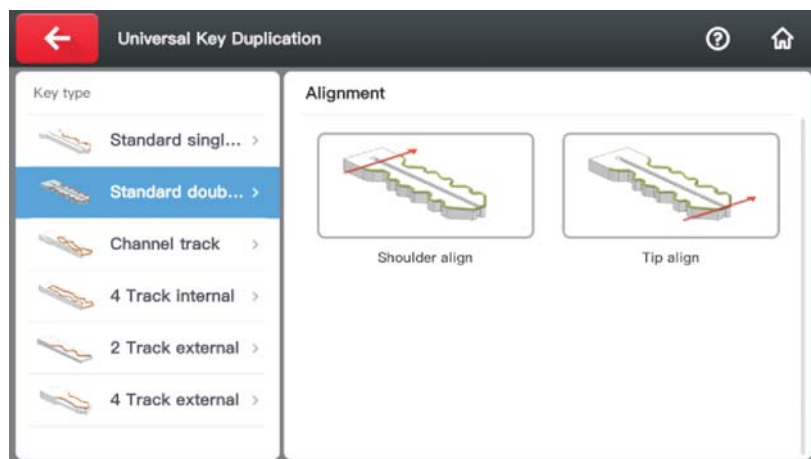


3) Select the key blank.

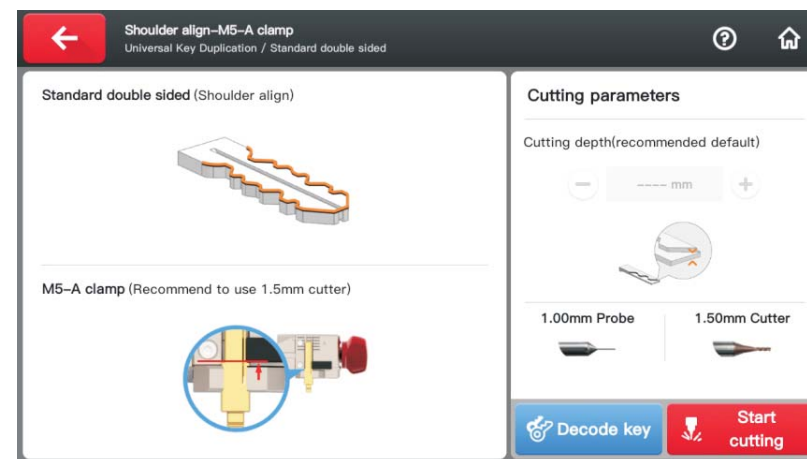
### Method 3 (Universal Key Duplication)



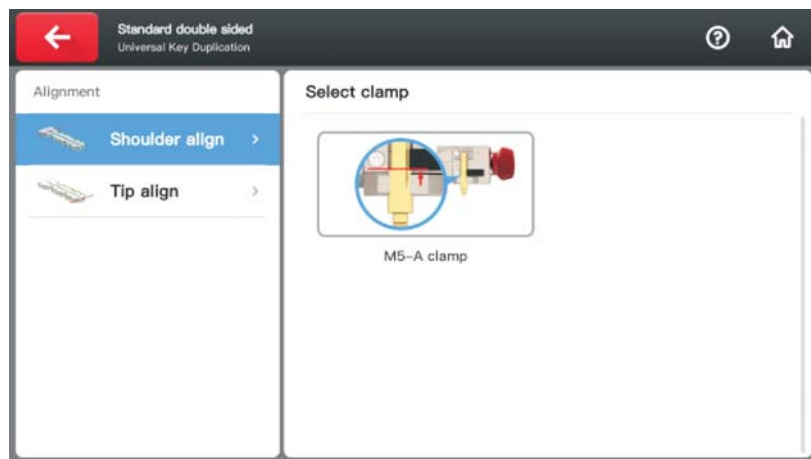
1) Click the "Universal Key Duplication" button.(On the main interface)



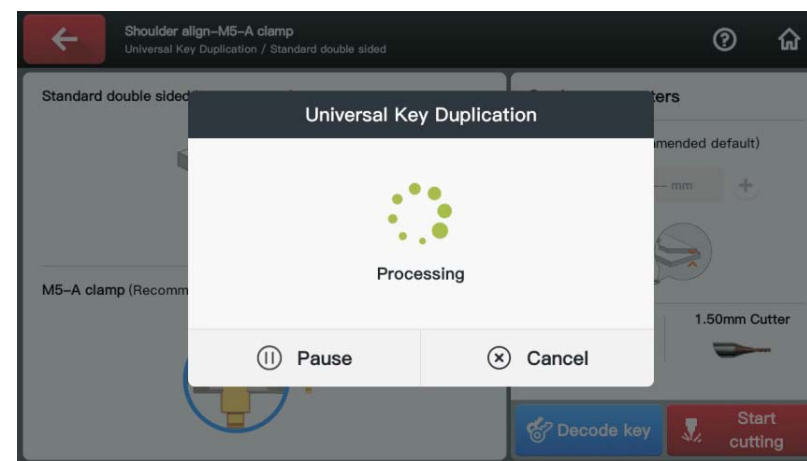
2) Choose the corresponding option according to the shape of the original car key.



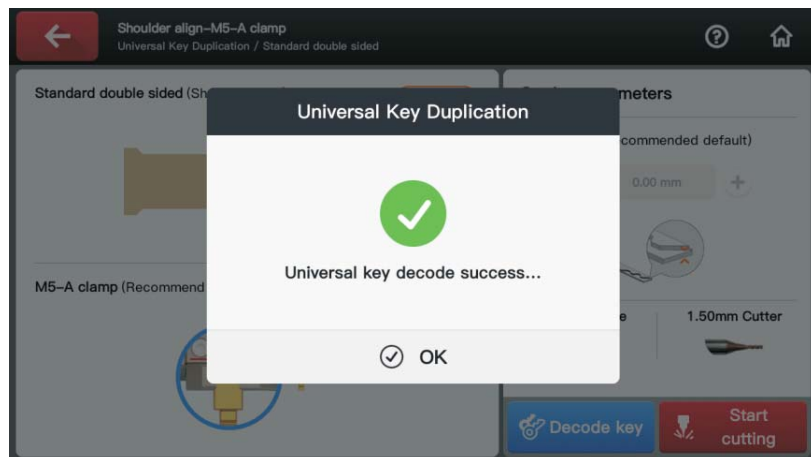
4) Install the original key according to the key alignment requirements prompted on the interface.



3) Choose the alignment and clamp.



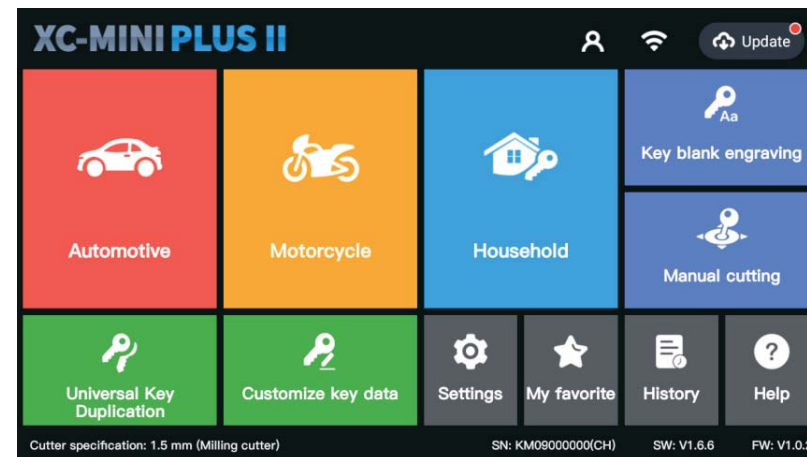
5) Click the "Decode key" button.



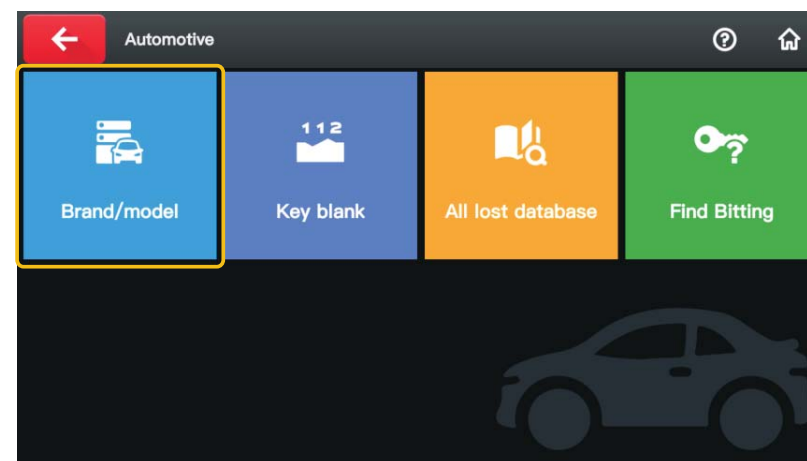
6) After the key decoding is completed, place the key blank as required and click to start cutting.

## 6.5 Automotive/Motorcycle key cutting

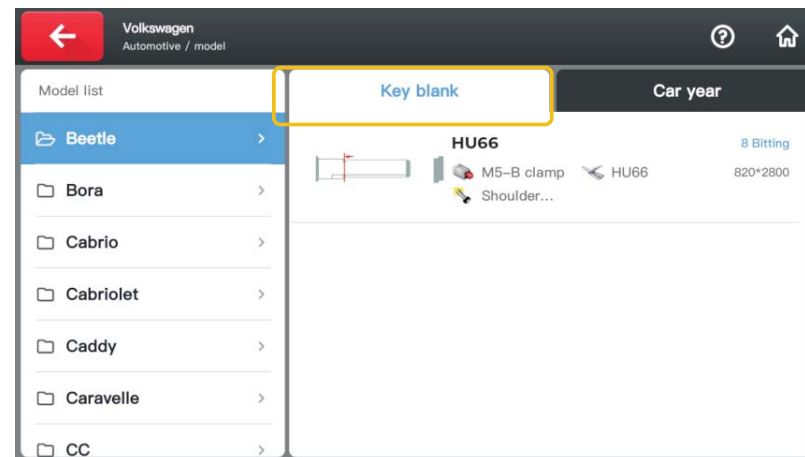
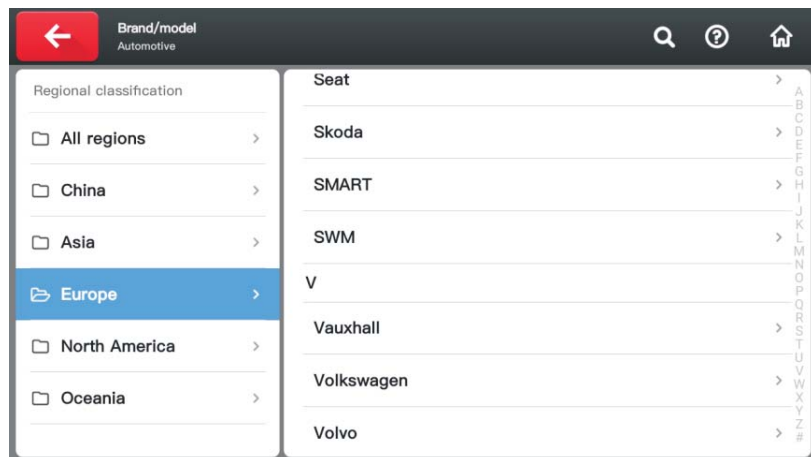
### Method 1(Brand/model)



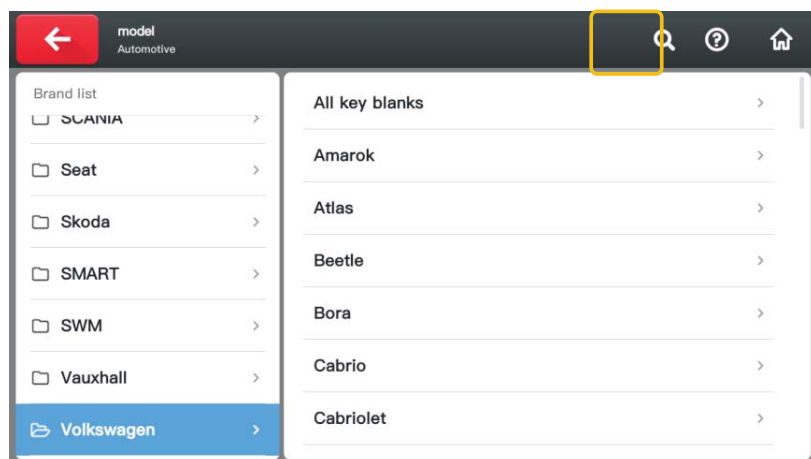
1) Enter the "Automotive/Motorcycle Key" interface.



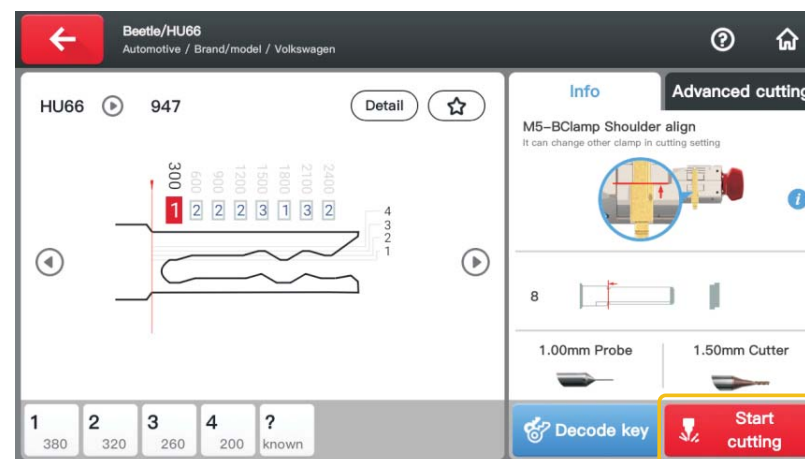
2) Click "Brand/model" button.



4) Select the key blank.

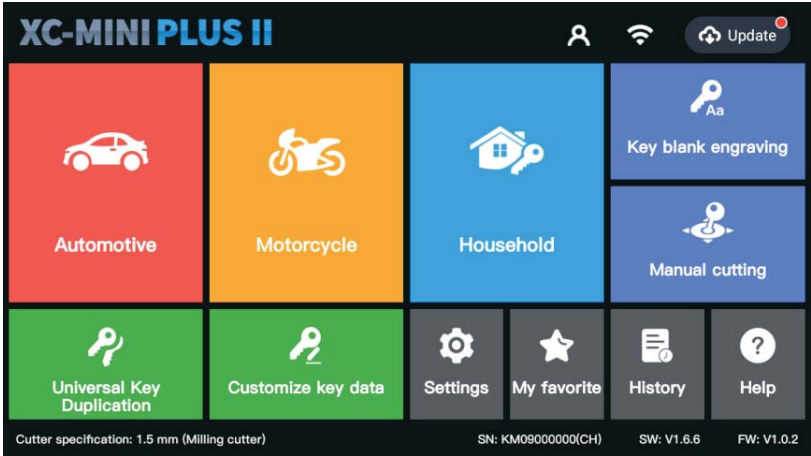
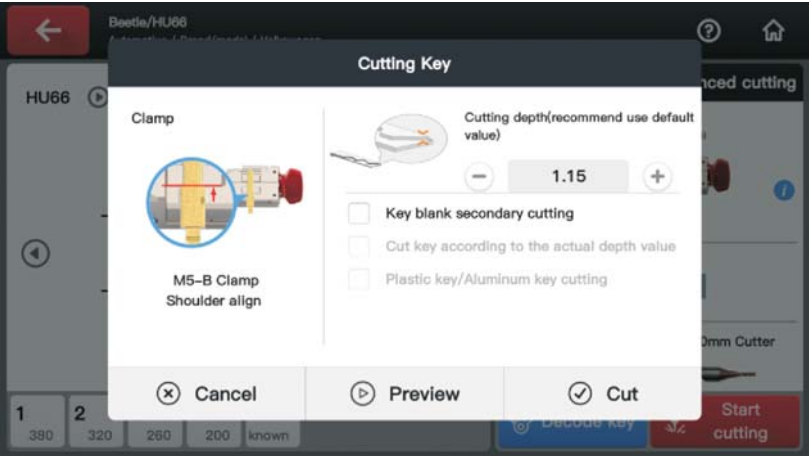


3) Select the manufacturer or click the "search button" to enter the brand or search by letter.

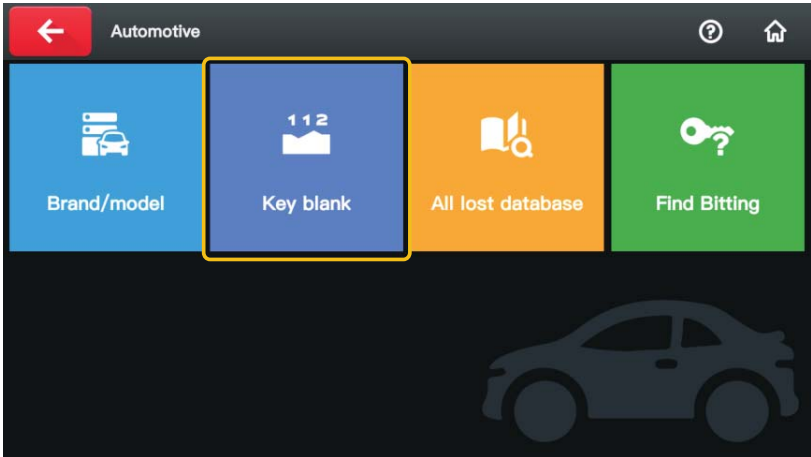
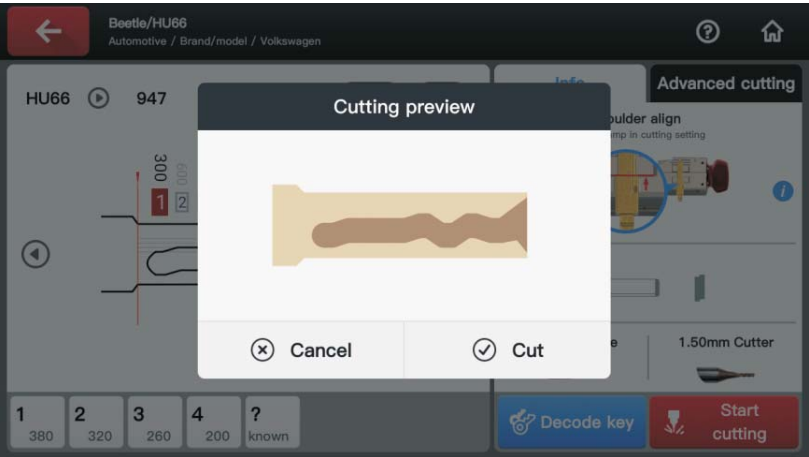


5) Install the key blank according to the diagram on the right, enter the key code and click the "Start cutting" button.

Method 2(Key blank)

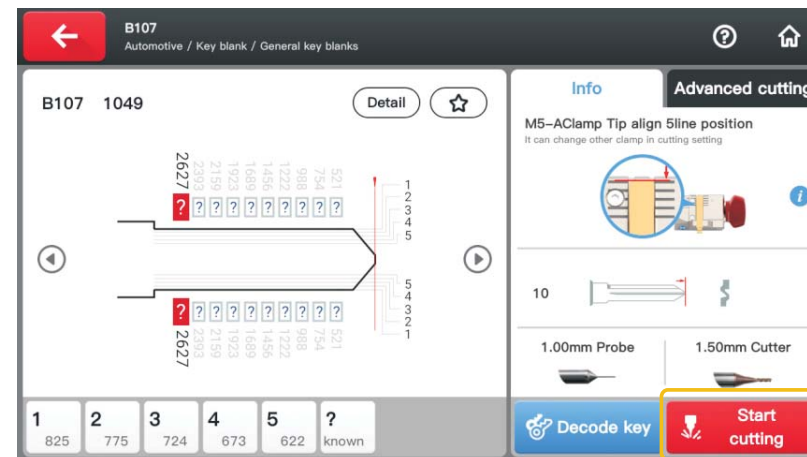
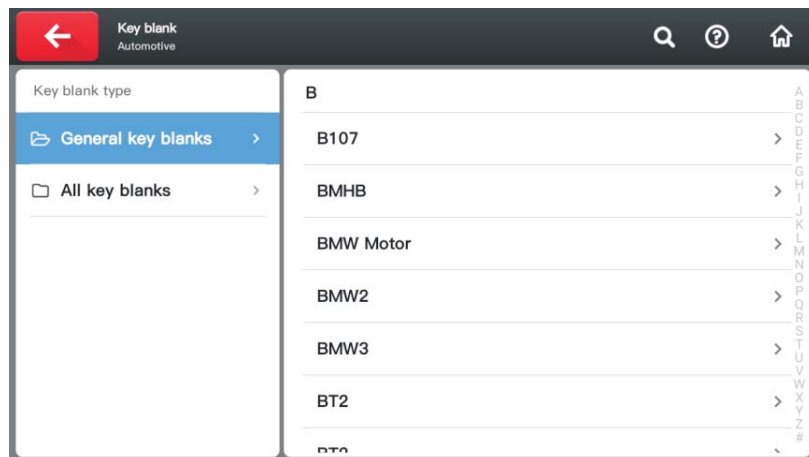


1) Enter the "Automotive/Motorcycle Key" interface.

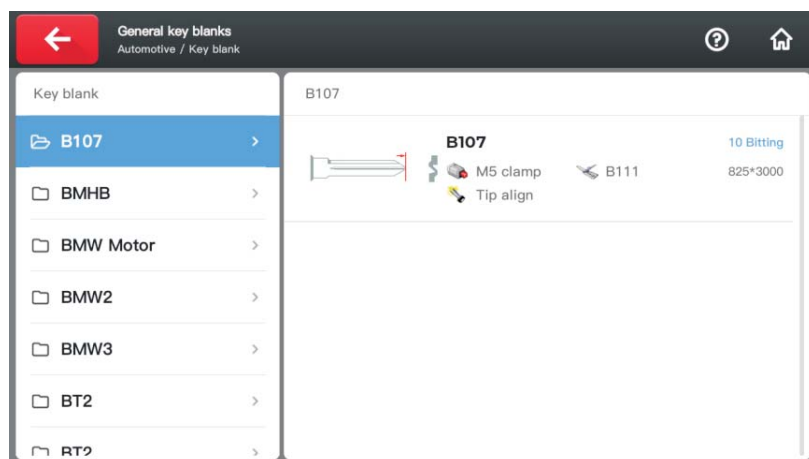


6) Click "Preview" to view the cutting effect (as shown in the figure above) or directly click "Cut" to process.

2) Click "Brand/model" button.



4) Install the key blank according to the diagram on the right, enter the key code and click "Start cutting".



3) Select the key blank.

## 6.6 All key lost

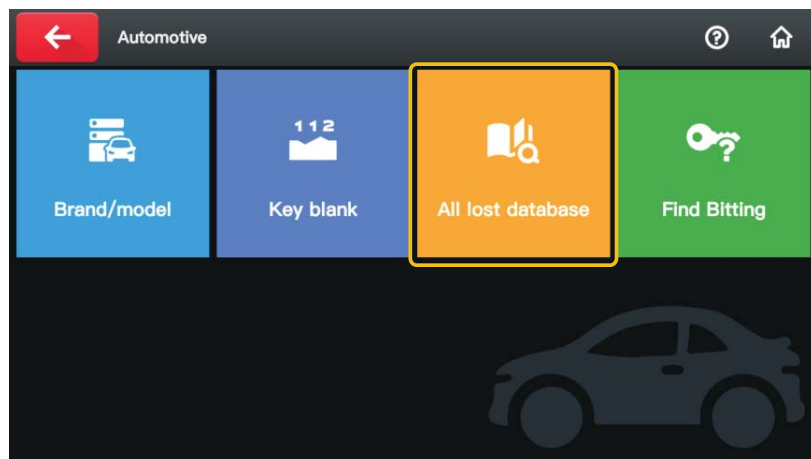
This function supports query both online and offline.

There are three ways to obtain the key code for processing keys using the function of losing all keys:

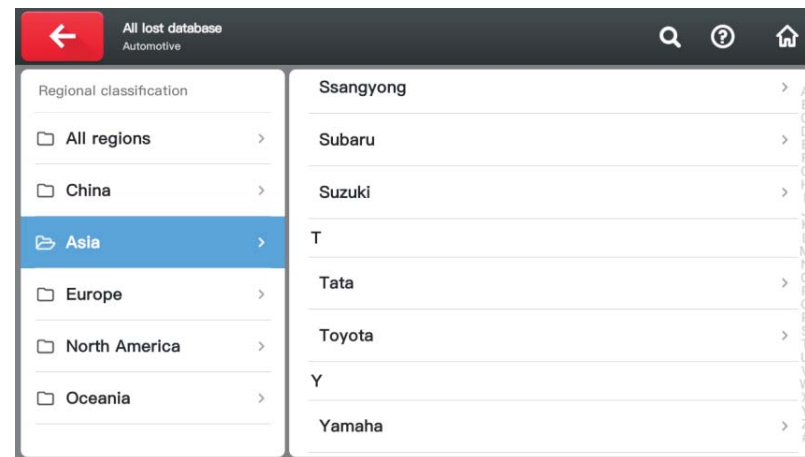
1. The key plate provided by the car factory.
2. The key code is printed on the lock body of some models.
3. Other ways to get the key code.



- 1) Enter the "Automotive/Motorcycle Key" interface.

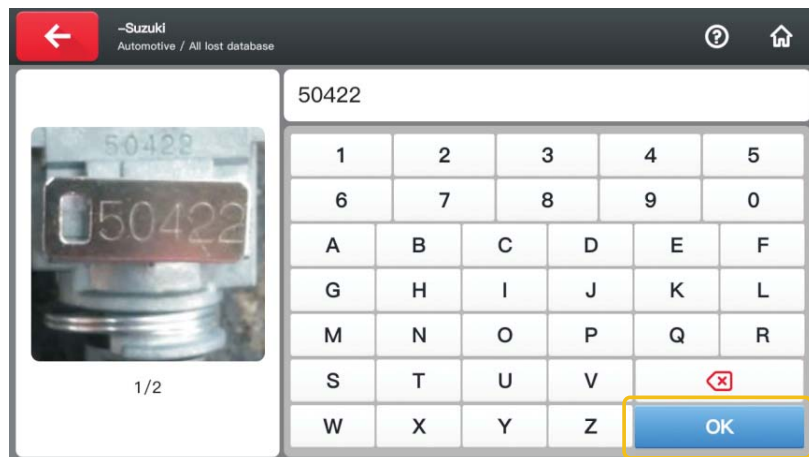


- 2) Click the "All key lost".



- 3) Select the manufacturer or click the "search button" to enter the brand or search by letter.

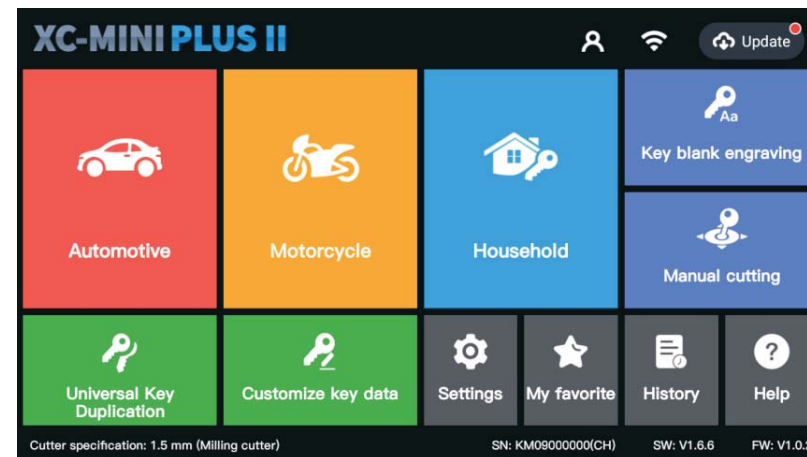




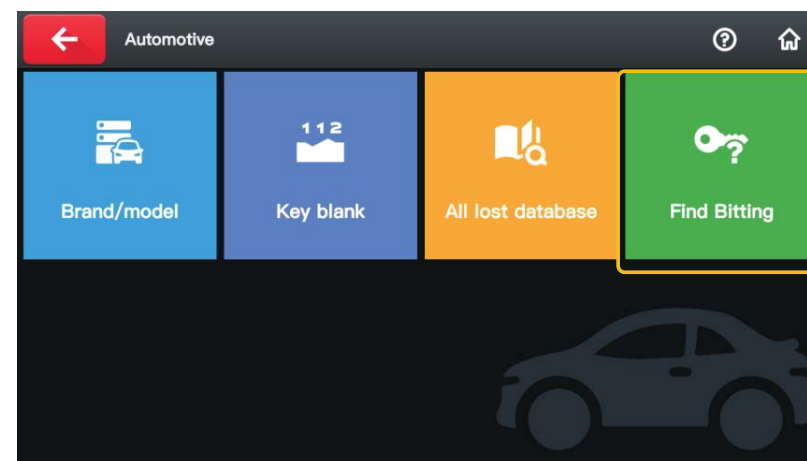
- 4) Enter the key code according to the icon on the left and click "OK" to query.  
(The legend on the left is for reference only, and does not include all key code types)

## 6.7 Find Bitting

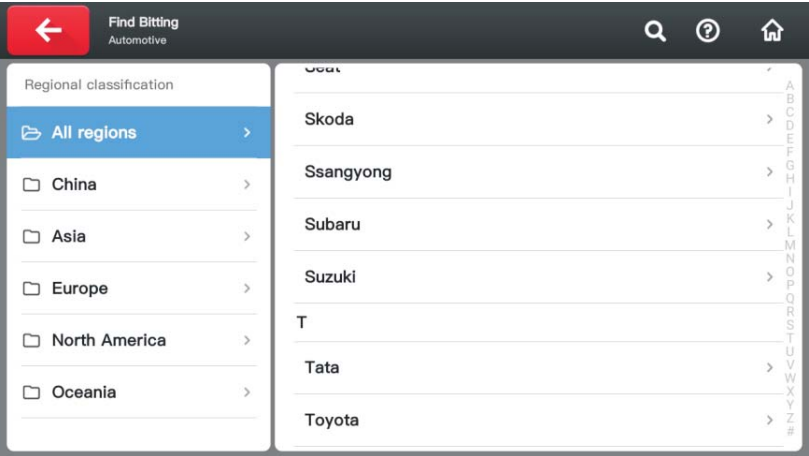
Compared with the ignition lock, the door locks and tail box locks of some models are missing lock plate pieces. You can disassemble the car lock to find the key bit missing piece position, replace it with "?", and enter it into the Find Bitting.



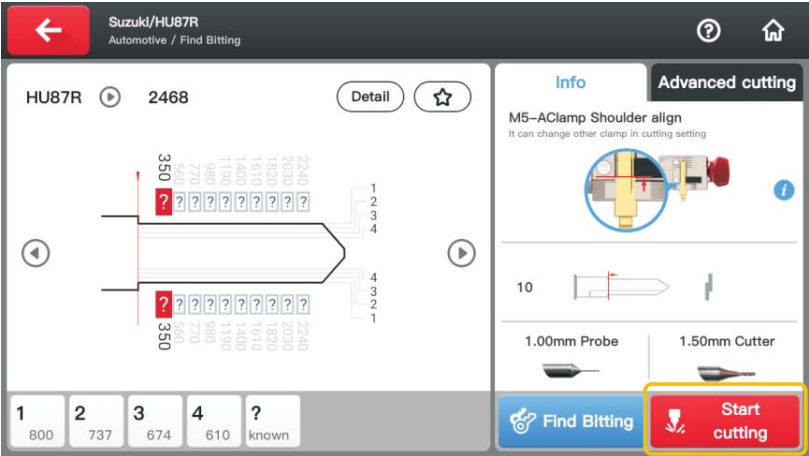
- 1) Enter the "Automotive/Motorcycle Key" interface.



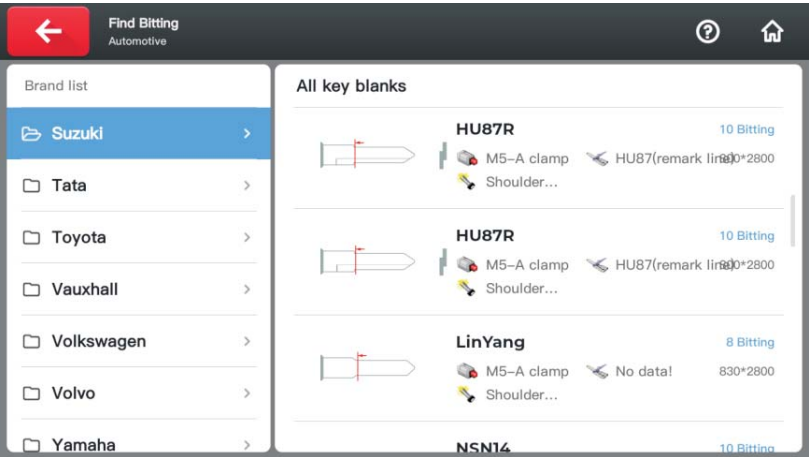
- 2) Click the "Find Bitting".



3) Select the manufacturer or click the “search button” to enter the brand or search by letter.



5) Enter the known key bit, if the key bit is not clear, directly enter “?” and click “Find Bitting” after input. It can processed according to the key bit which calculated by the system.

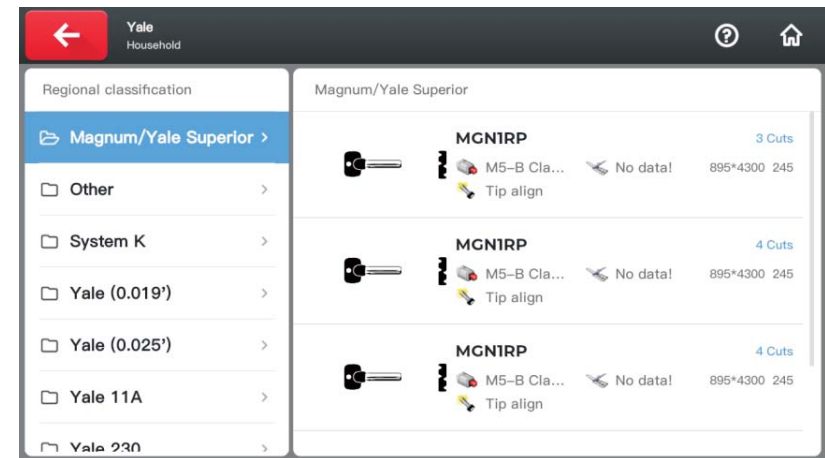


4) Select the key blank.

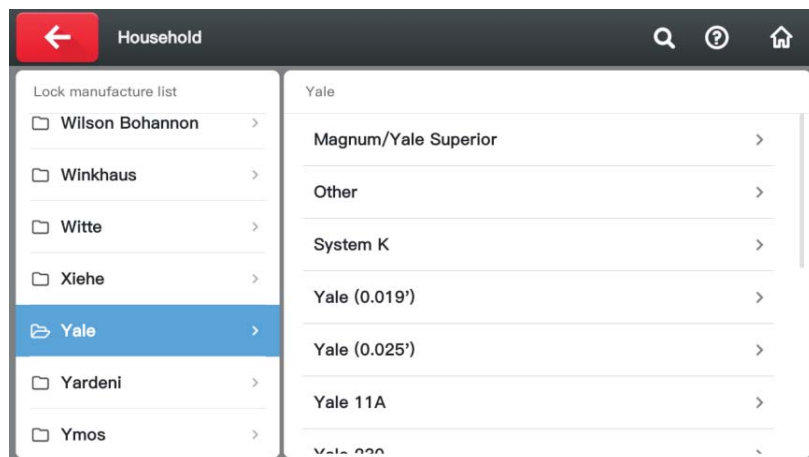
## 6.8 Household



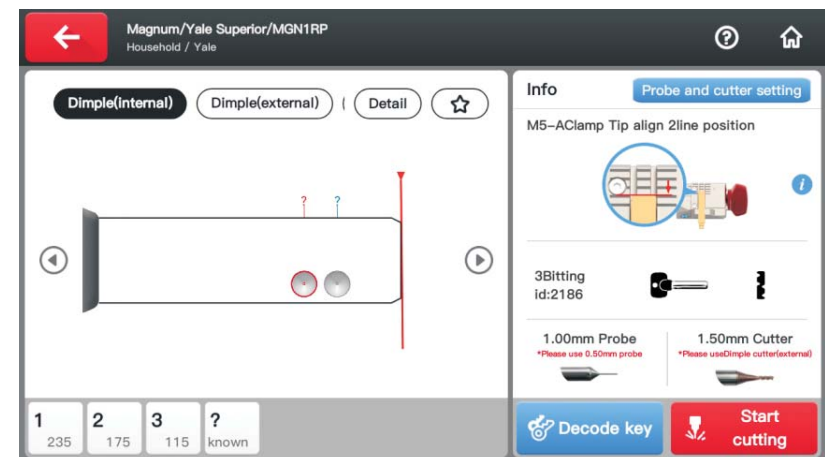
1) Enter the "Household" interface.



3) Select the type of key blank.

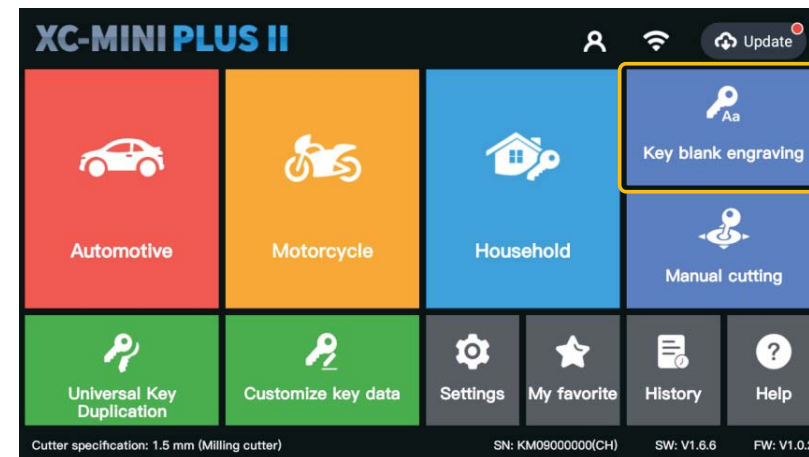
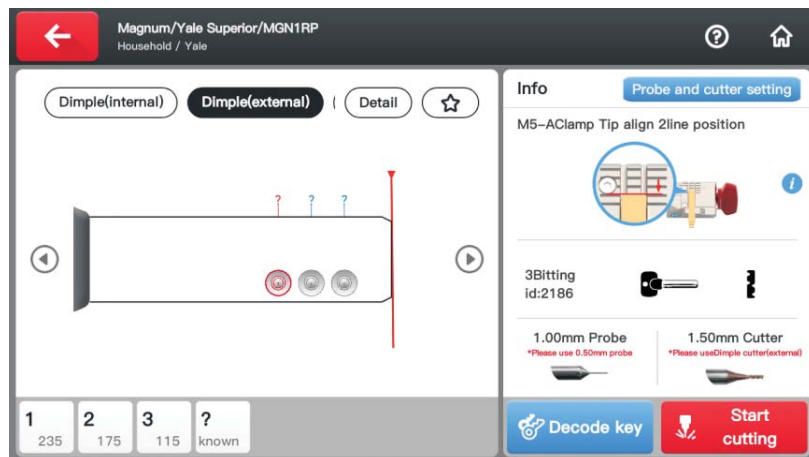


2) Choose lock factory brand and key options.

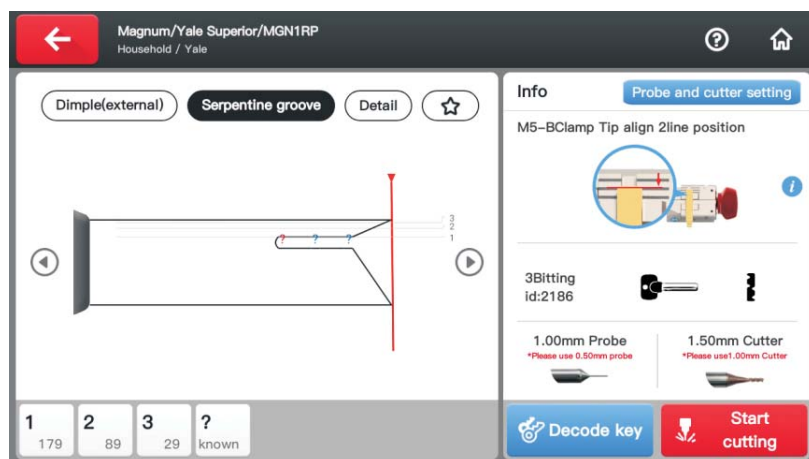


4) Select the cutting method of the key.

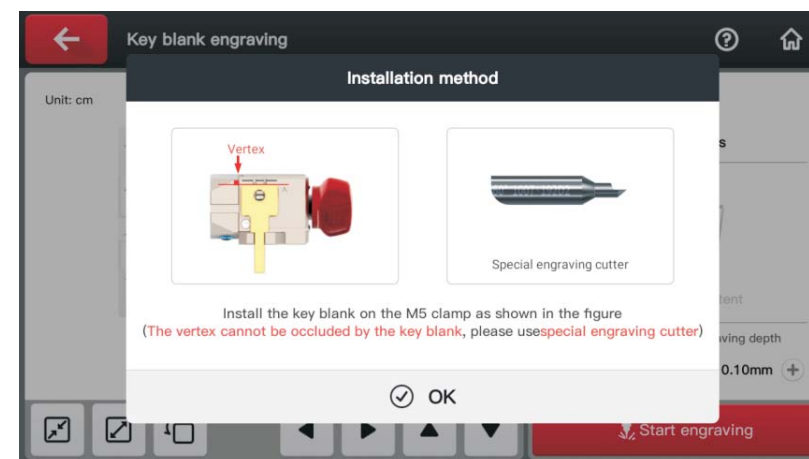
## 6.9 Key blank engraving



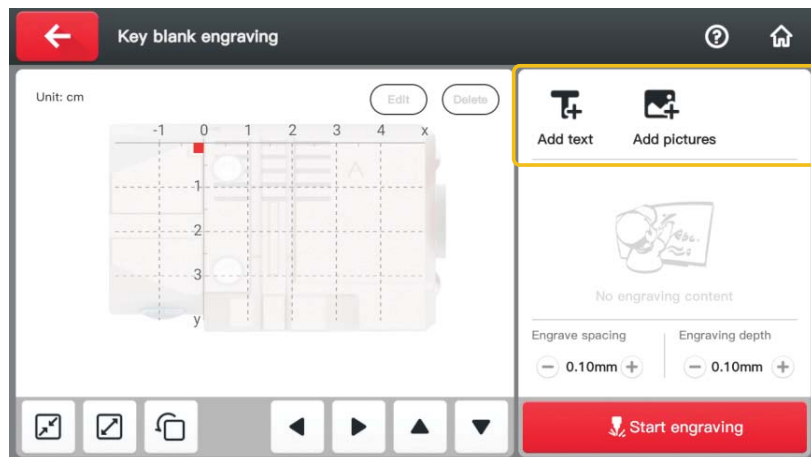
1) Click the "Key blank engraving" option.



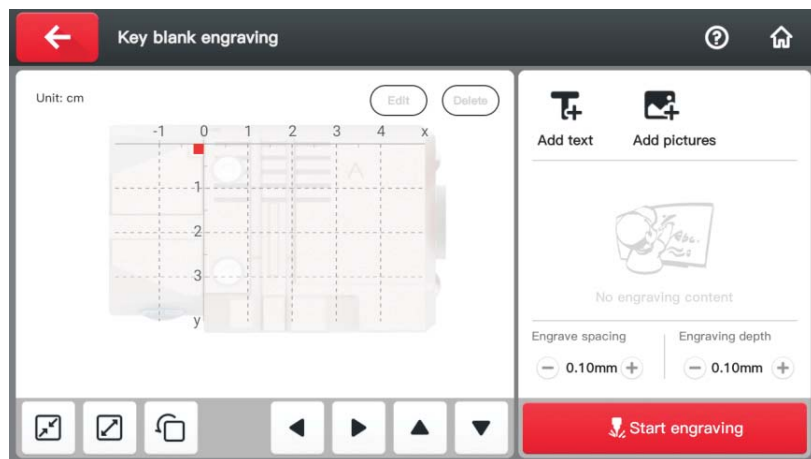
5) Install the key blank according to the diagram on the right, enter the key code and click "Start cutting".



2) Install the key blank and engraving cutter as shown in the figure.



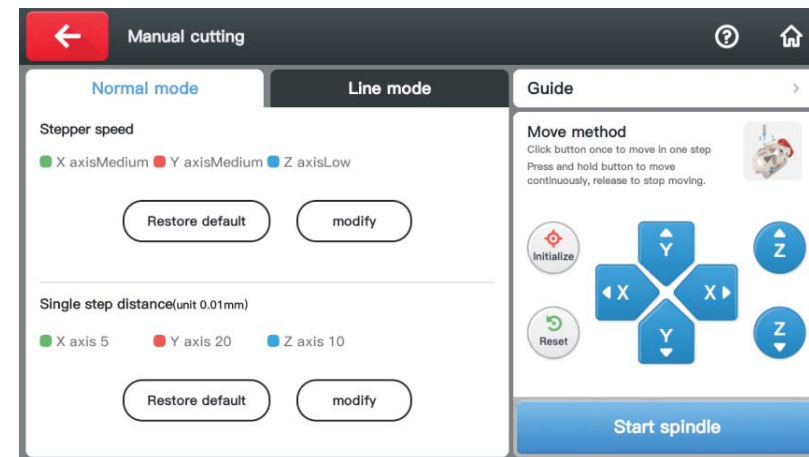
3 ) Click “Add text” or “Add pictures” button.



- 4) ①Edit and delete the added text  
 ②Enlarge and reduce the added text  
 ③Rotate the added text  
 ④Move the added text to confirm that the text is correct, click to start engraving  
 (Notes: Engraving time depends on how much engraving content)

## 6.10 Manual cutting

This function can be used to modify the key blank such as thinning and widening the key.

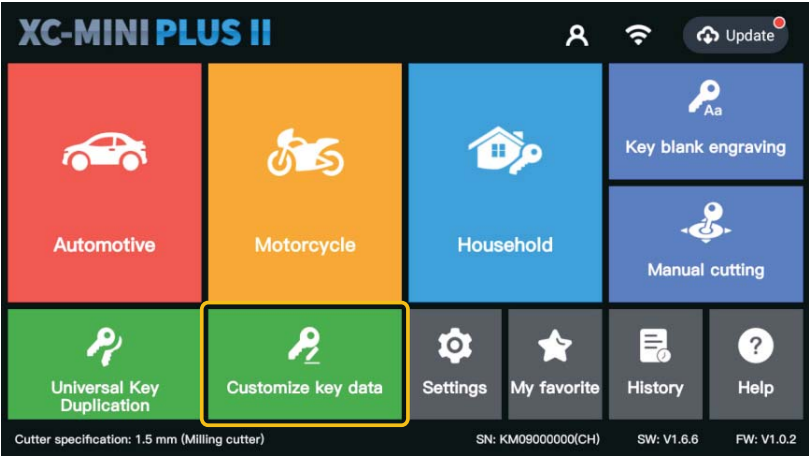


Note: You must click the “Reset default” button before using this function, and click “modify” after the operation is completed. The protective cover must be covered when the machine is cutting. The user can adjust the parameter settings on the right to adjust the working speed of the machine.

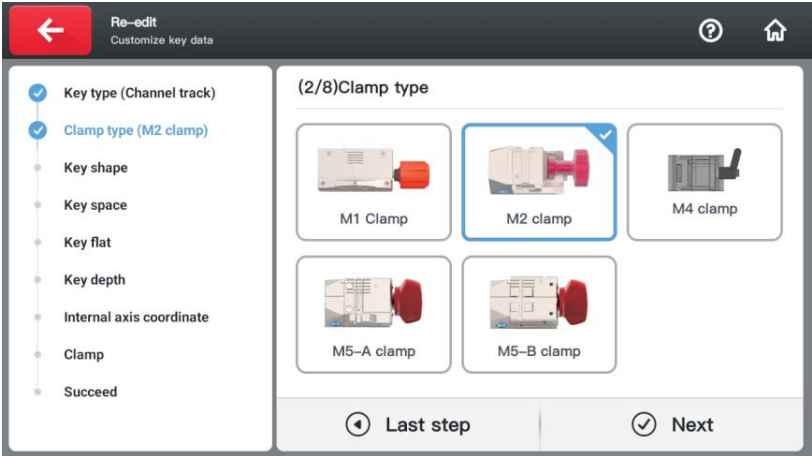
Move method:

1. Click button once to move in one step;
2. Press and hold button to move continuously, release to stop moving.

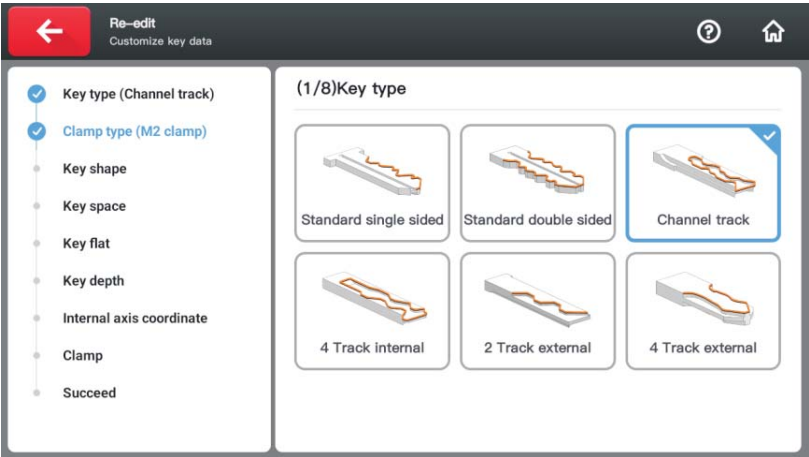
6.11 Customize key data



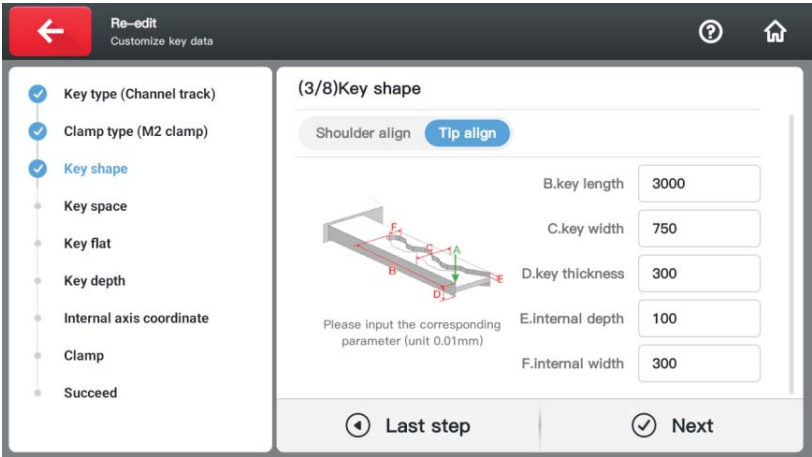
1) Click the “Customize key data” option.



3) Select the type of clamp.



2) Select the type of key blank.



← Set key attributes  
Customize key data

1 2 3  
4 5 6  
7 8 9  
◀ 0 ✖

(3/8)Key shape

Shoulder align Tip align

B.key length 2100  
C.key width 600  
D.key thickness 300  
E.internal depth 150

Please input the corresponding parameter (unit 0.01mm)

⏪ Last step ⏩ Next

4) Select shoulder align or tip align and enter the corresponding parameters of the key.

← Re-edit  
Customize key data

✓ Key type (Channel track)  
✓ Clamp type (M2 clamp)  
✓ Key shape  
✓ Key space  
✓ Key flat  
Key depth  
Internal axis coordinate  
Clamp  
Succeed

(5/8)Key flat

B-axis

Position Cut width Position Cut width  
1 100 2 100  
3 100 4 100  
5 100 6 100

Please input the corresponding parameter (unit 0.01mm)

⏪ Last step ⏩ Next

6) Enter the A-axis and B-axis tooth width parameters.

← Re-edit  
Customize key data

✓ Key type (Channel track)  
✓ Clamp type (M2 clamp)  
✓ Key shape  
✓ Key space  
Key flat  
Key depth  
Internal axis coordinate  
Clamp  
Succeed

(4/8)Key space

B-axis Cuts - 7 +

Position Space Position Space  
1 2050 2 1800  
3 1550 4 1300  
5 1050 6 800  
7 550

Please input the corresponding parameter (unit 0.01mm)

⏪ Last step ⏩ Next

5) Enter the A-axis and B-axis tooth width parameters.

← Re-edit  
Customize key data

✓ Key type (Channel track)  
✓ Clamp type (M2 clamp)  
✓ Key shape  
✓ Key space  
✓ Key flat  
✓ Key depth  
Internal axis coordinate  
Clamp  
Succeed

(6/8)Key depth

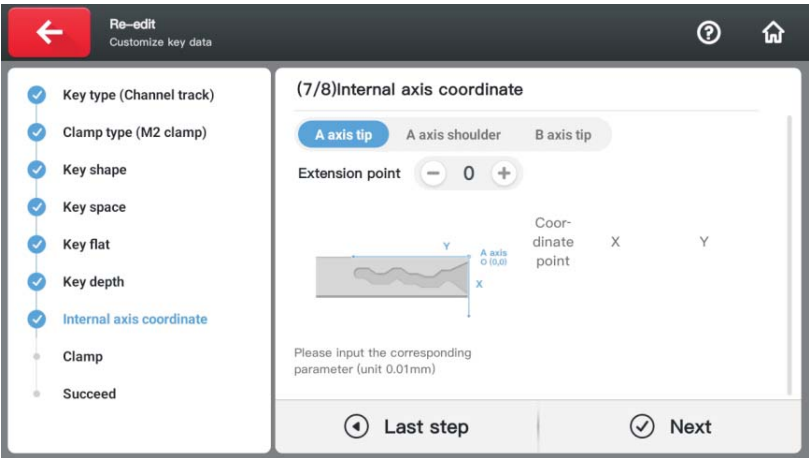
B-axis Depth - 4 +

Position Depth Position Depth  
1 330 2 270  
3 210 4 150

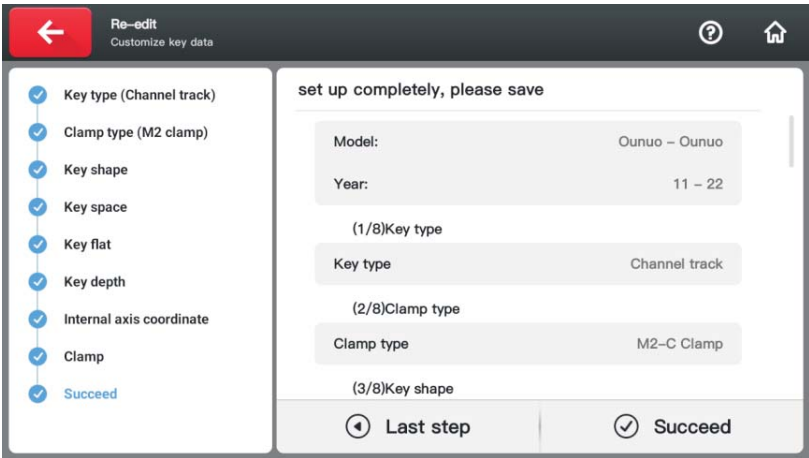
Please input the corresponding parameter (unit 0.01mm)

⏪ Last step ⏩ Next

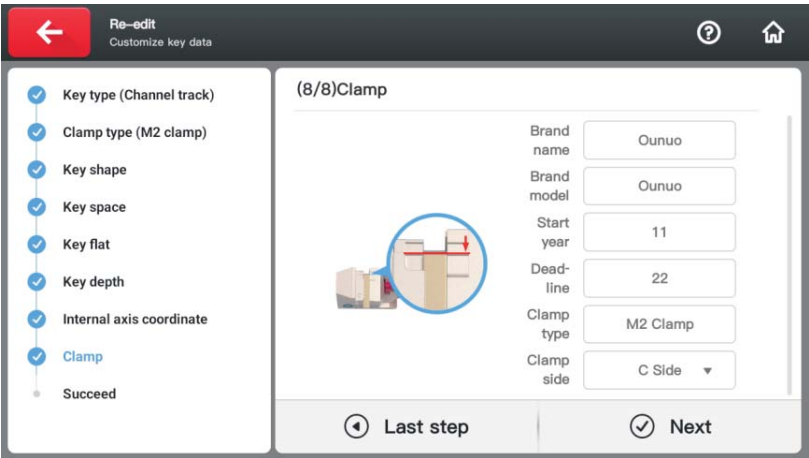
7) Enter the key bit depth parameter.



8) Enter the coordinates of the A-axis head and A-axis tail groove edge distance.



10) After verifying the parameters, click "Succeed".



9) Choose the type of the clamp.

7. Maintenance

- Please clean the area around clamps with a brush before the machine starts to work. This is to assure cutting precision and avoid components damage by metal particles.
- To avoid damage or corrosion to the machine, please do not use detergent or other cleaning products to clean the machine.
- Please do not flush or wet the machine with water, in case rust and electrical current leakage.
- Under any circumstance, please do not try to clean the working area with air guns and drying machines, in case any metal carvings getting inside the machine.

8. After-sale description

Regarding to customer service and technical support, please contact distributors or Xhorse online customer service team by scanning the QR code below and downloading Xhorse official App.



Scan QR Code to download Xhorse APP

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FCC Warning

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and  
(2) This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:  
Reorient or relocate the receiving antenna.  
Increase the separation between the equipment and receiver.  
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.  
Consult the dealer or an experienced radio/TV technician for help.

**Radiation Exposure Statement**  
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

**CE/UKCA Statements:**  
Do not use the device in the environment at too high or too low temperature, never expose the equipment under strong sunshine or too wet environment.  
The suitable temperature for the product and accessories is 0°C~50°C.  
Power Parameters: Input: 90-264V ~, 200W, 50/60Hz.  
RED2014/53/EU

**RF exposure information:** The Maximum Permissible Exposure (MPE) level has been calculated based on a distance of d=20cm between the device and the human body. To maintain compliance with RF exposure requirement, use product that maintain a 20cm distance between the device and human body.

The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

| Operation Frequency         |                   | Max.EIRP |
|-----------------------------|-------------------|----------|
| Bluetooth:2402 MHz~2480 MHz |                   | 8.82 dBm |
| WLAN 2.4G:2412 MHz~2472 MHz |                   | 17.59dBm |
| WLAN 5G                     | 5150 MHz~5250 MHz | 17.59dBm |
|                             | 5725 MHz~5850 MHz | 17.59dBm |

This product can be used across EU/UK member states.



