

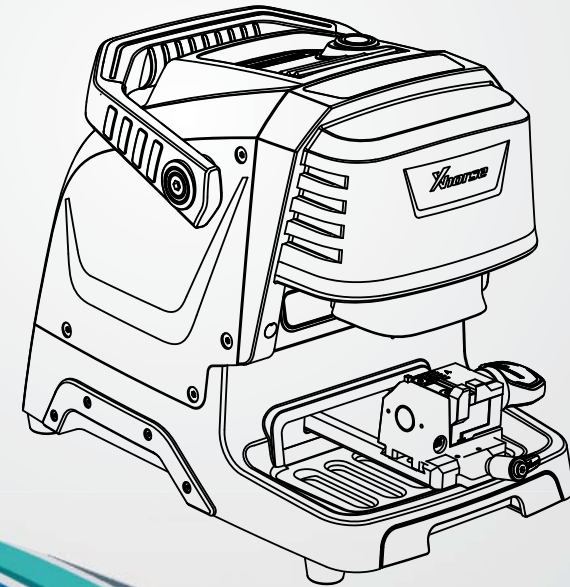
DOLPHIN

Automatic Key Cutting Machine
XP-005

User Manual

V2.0

FCC ID : 2A5TU-XP0501



Xhorse®



XP-005
Automatic Key Cutting Machine

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1. Safety precautions and warnings

To avoid injuries to operators and damages to machines, please read this product user manual carefully before you start and follow the safety notes listed 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 machines 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 place 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 instantly under unusual circumstance

2. General information

2.1 Machine description

Dear customers, thank you for choosing XP-005 automatic key cutting machine.

Dolphin XP-005 is a portable machine, with a small volume and light weight, is particularly and carefully designed for locksmiths worldwide.

This product user manual provides operating instructions for you to use the machine correctly and safely. 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.

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2.2 Machine characteristics




- Smart control and operation on APP and build-in database
- Portability and build-in Lithium battery with a long battery life
- Support clamps M1/M2/M3/M4/M5
- Supporting sided/track/dimple keys/tibbe keys/some household keys
- Cutter and probe work in parallel
- Aluminum structure
- Imported ball screw with high precision
- Cross rail with high rigidity
- Supporting online update
- Operating in multiple languages

Note: *Lithium battery is an optional accessory

3. Product packaging checklist






A full package of XP-005 should include accessories listed in the following table. Please check when you get this product and contact your distributor if anything in the table is missing.

Name	Sample picture	Quantity	Description
Machine		1	Key cutting machine
1.5mm cutter		1	Cutting tool (φ1.5*φ6*40L)
2.5mm cutter		1	Cutting tool (φ2.5*φ6*40L)
Probe		2	Probing tool (φ1.0*φ6*40L)
2mm hexagon bar wrench		1	Tracer point tool, key fixation on clamp M1
3mm hexagon bar wrench		1	Clamp installation tool
USB cable		1	Tool of connecting machine with computer
Power adapter			Power supply
1.5m Power cord of Mainland China			Connect to power
1.5m Power cord of UK			Connect to power
1.5m Power cord of US			Connect to power
1.5m Power cord of EU			Connect to power
Built-in battery (optional)			Portable power supply

Brush		1	Cleaning tool
Product quality certificate		1	Factory inspection report and packing list
User manual		1	Machine assembly/adjustment/operation instruction

*Please refer to the above checkmark confirmation form for the actual accessories and quantity.

DOLPHIN XP-005 support clamp type:

Name	Sample picture	Description
Clamp M1 and link stopper		Cutting clamp
Clamp M2 and shim		Cutting clamp
Clamp M3		FO21/SX9 key clamp
Clamp M4		Household key clamp
Clamp M5 and link stopper		Cutting clamp

*Different version machine equipped with different clamp, equipped clamp to prevail in kind please.

4. Overview

4.1 Structure diagram



4.2 Specification

Input voltage	24V DC
Power	150W
Battery capacity	64.26Wh
Principal axis rotation speed	12000rpm
Motor Torque	0.15N.m
Working temperature	0-50°C(-4-158°F)
Humidity	10-90%
Net weight	15kg
Gross weight	18kg
Machine size	315mm*218mm*270mm
Package size	510mm*315mm*345mm



Machine size



Package size

4.3 Software overview

4.3.1 Introduction

- Supporting self-calibration
- Supporting key duplication and cutting for vehicle keys
- Supporting universal key decode for multiple key types
- Operation on APP through Bluetooth
- Build-in key database

4.3.2 Smart phone operation system

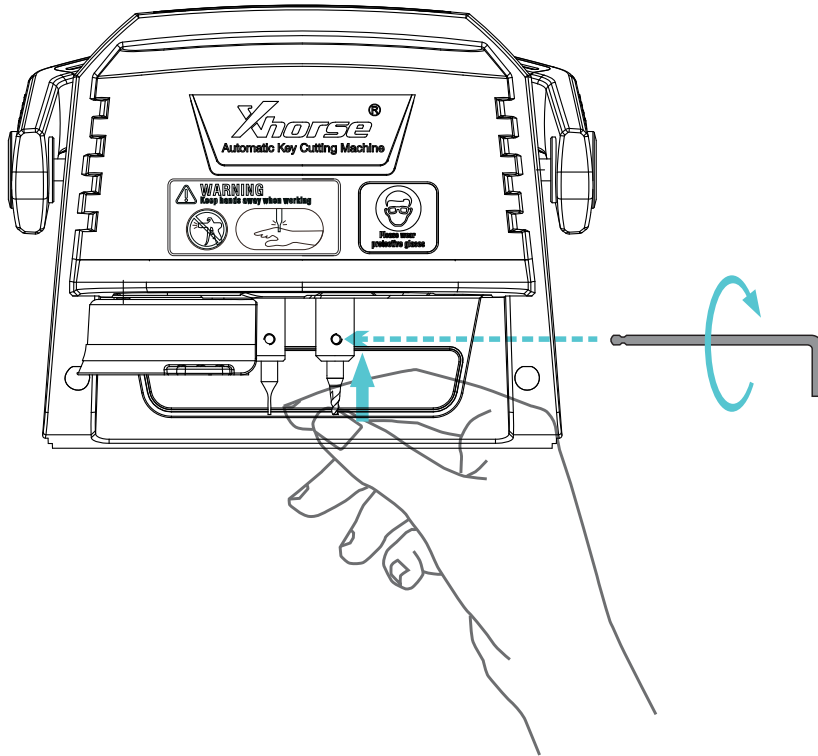
- Android: Android 4.0 and above version
- Apple devices: IOS 8.0 and above version

4.3.3 Software update

- Online update on APP
- Update through Xhorse 'Upgrade'.

5. Installation instruction

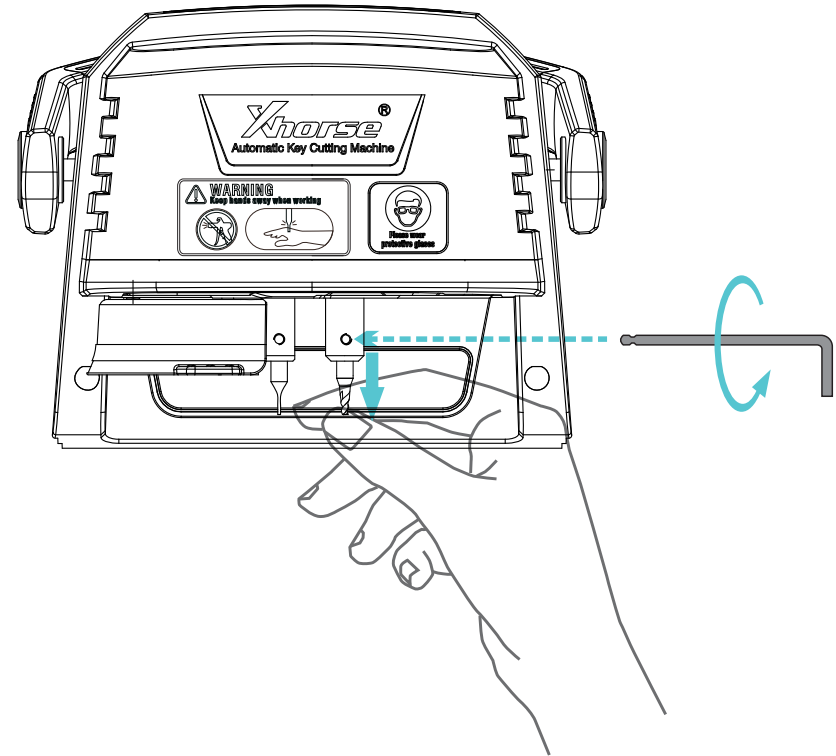
5.1 Cutter and probe installation



Installation steps:

- 1) Put the cutter into the cutter mounting hole and push the cutter to the limit. Then drop the cutter 2-5 mm down. When the screw is perpendicular to the notched part of the side of the milling cutter, the locking screw and the fixed milling cutter.
- 2) Push the probe into the probe mounting hole and the tip of probe need to be higher than the tip of cutter. Turn the 'probe locking screw' clockwise until the probe is locked.

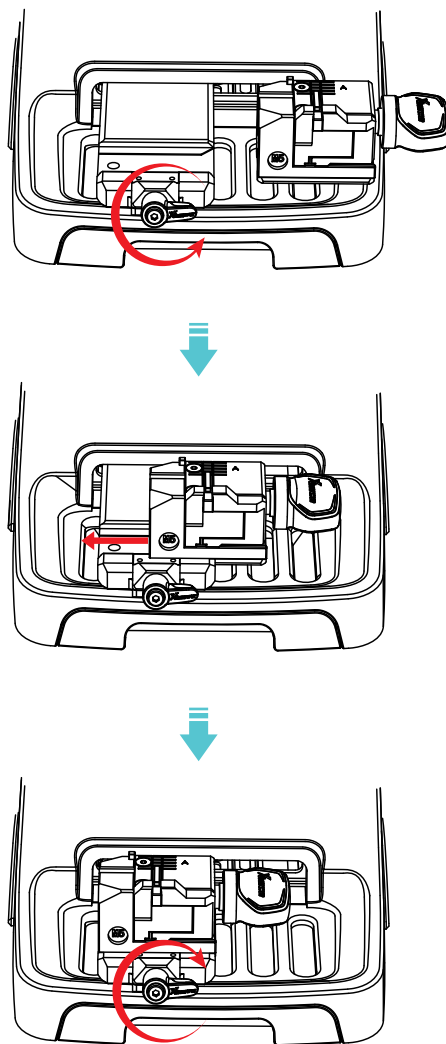
5.2 Cutter and probe uninstallation



Uninstallation steps:

- 1) Unscrew the locks for cutter and probe counter-clockwise until they are loosened off.
- 2) Take the cutter or probe off when it is loose.

5.3 Clamp installation



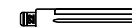
- (1) Turn the clamp screw fixture counterclockwise to loosen the clamp from the clamp platform.
- (2) Push the M5 clamp into the clamp platform from right to left.
- (3) Turn the clamp screw fixture clockwise to fix the clamp to the clamp platform.

5.4 Pictures of clamps



Clamp M1

Supporting type (as picture below)



Standard single/double sided key



Clamp M2

Supporting type (as picture below)



4 Track external



2 Track external



4 Track internal

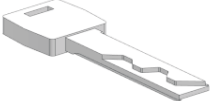
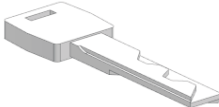
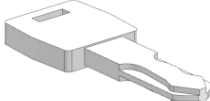
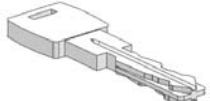
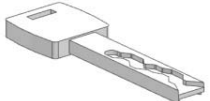
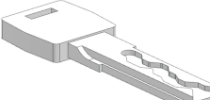
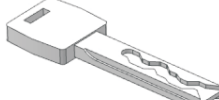
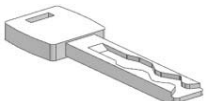
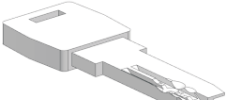


Channel track



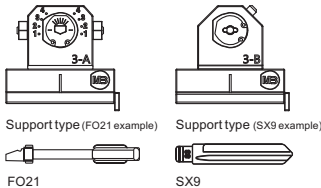
Dimple keys

Clamp M2 sides selection

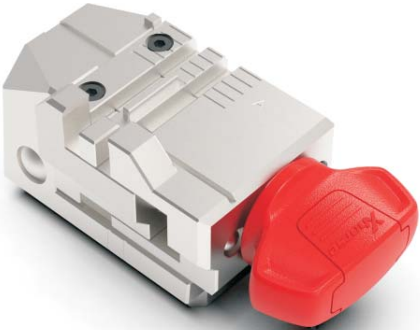
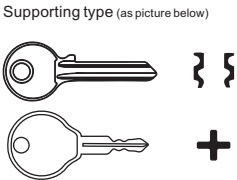
Key types	Cutting side pictures	Clamp cutting sides	Description
2 Track external		A/C	1) A side and D side work for the same types of keys, please select it according to the deepness of the keys
		A/B	
4 Track external		A/D	
		A/D	
Channel track		A/D	
		A/C	
		A/B	2) Dimple keys need a specialized cutter
4 Track internal		A/D	
Dimple keys		A/D	



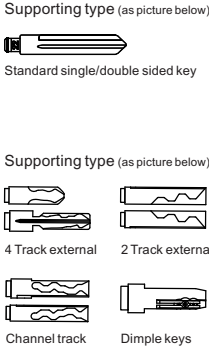
Clamp M3



Clamp M4



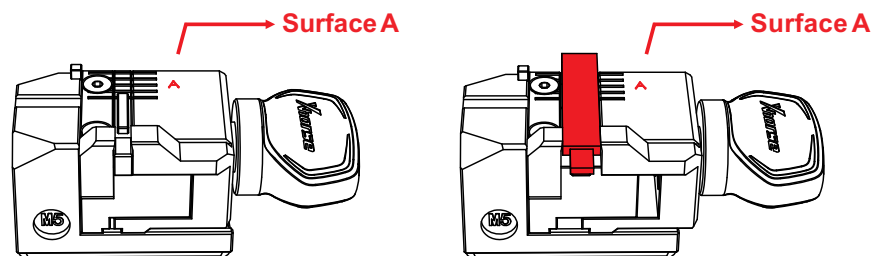
Clamp M5



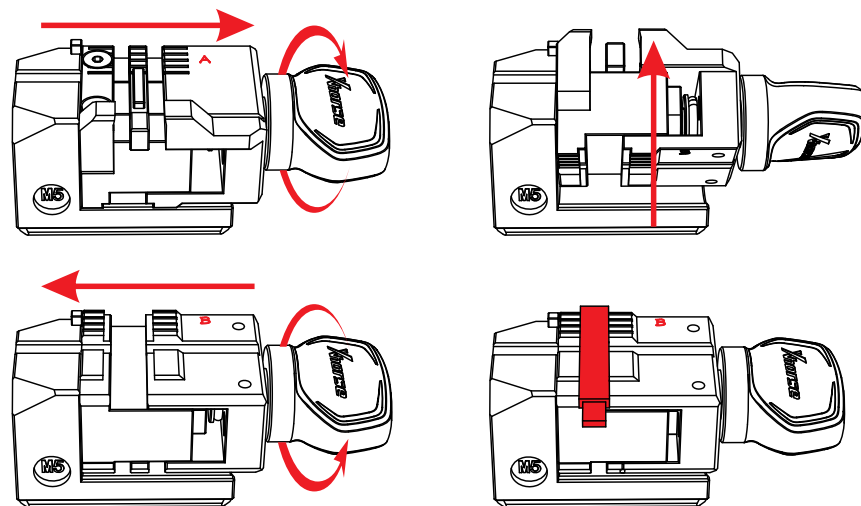
5.5 Clamp instruction

1. Instructions for use of the clamp

The M5 clamp can be used to hold different types of key blades by reversing the clamp surface, example below.

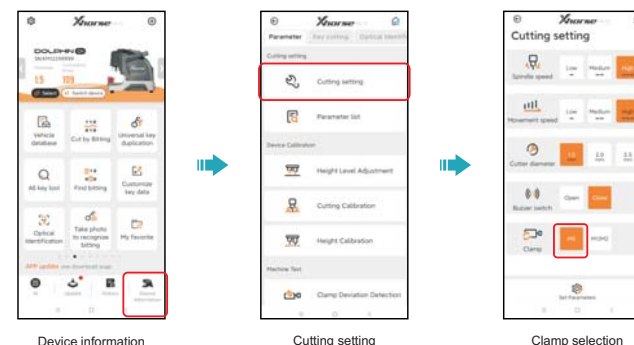


(1) If the key blade is standard double side type, use surface A of the clamp to hold the key blade.



(2) If the key blade is 4 track internal type, use surface B of the clamp to hold the key blade. You can rotate the right handle of the clamp counterclockwise and turn the clamp surface to surface B for holding key blade.

2. Clamp setting and calibration

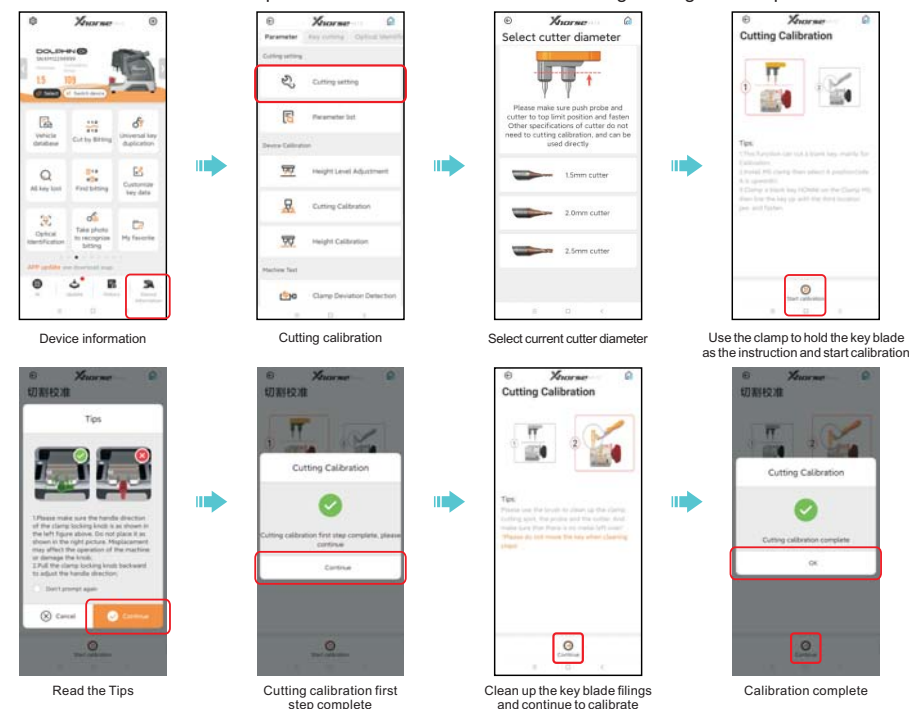


Device information

Cutting setting

Clamp selection

(1) When the machine default setting M1, M2 clamps, you can't use M5 clamps. You need to set the machine to use M5 clamp as follows Device Information→Cutting Settings→Clamp selection.



Device information

Cutting calibration

Select current cutter diameter

Use the clamp to hold the key blade as the instruction and start calibration

Read the Tips

Cutting calibration first step complete

Clean up the key blade filings and continue to calibrate

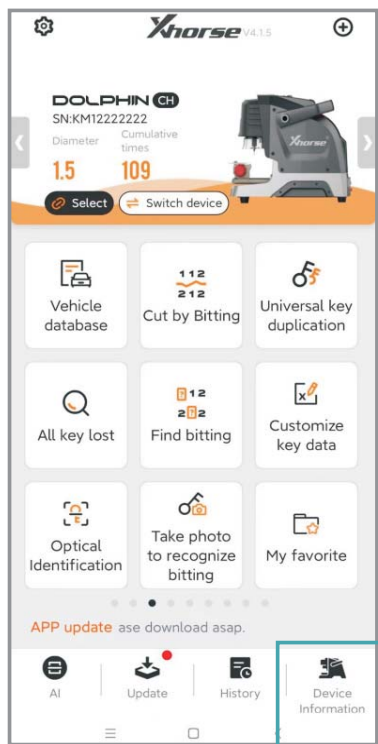
Calibration complete

(2) The new machine needs to do cutting calibration before cutting the keyblade, do cutting calibration as follows: Device information → cutting calibration → Select the cutter diameter → Start calibration. Please read the APP interface tips carefully and follow the tips for cutting calibration. After the calibration is completed, you can decode and cut the key blade normally.

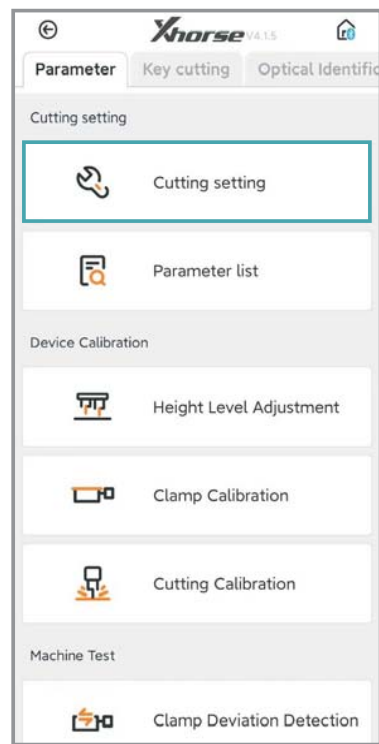
6. Operation instructions on APP

The system needs to initialize for first use. The steps as follows:

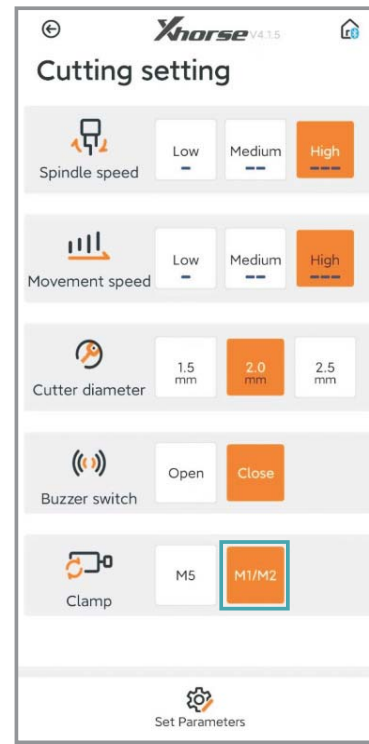
6.1 Height Level Adjustment (M1Clamp)



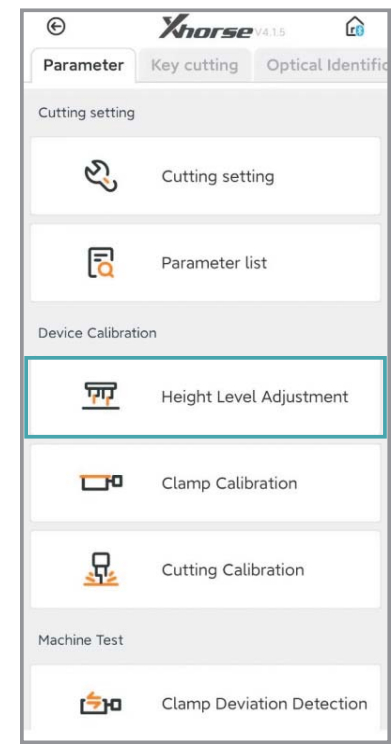
1) Enter Dolphin XP-005 operation main interface and click on 'Device Information'.



2) Click 'Cutting setting' to select clamp type.



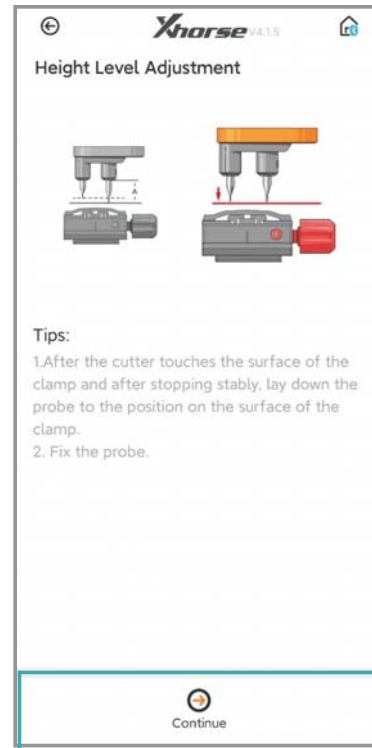
3) Select M1/M2 clamp and click 'Set parameters'.



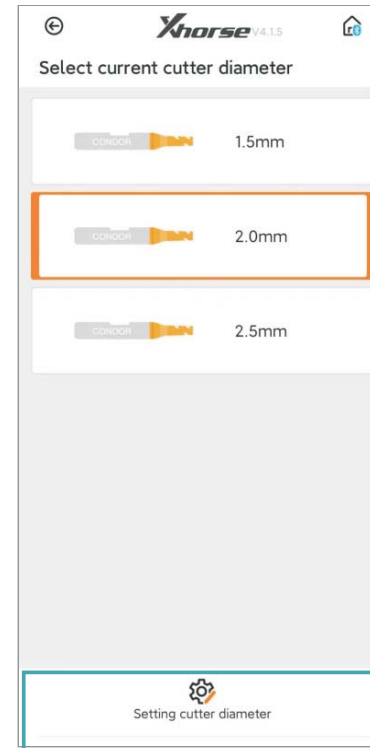
4) Click 'Height Level Adjustment'.



5) Read the tip and install the probe and cutter as the tip show, then click 'Start'.

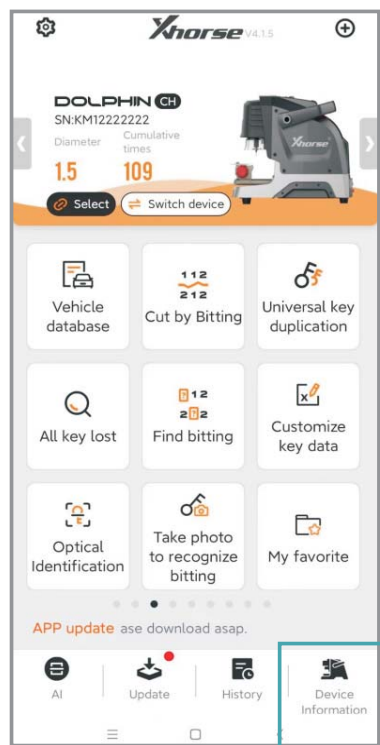


6) Read the tip and install the probe and cutter as the tip show, then click 'Continue'.

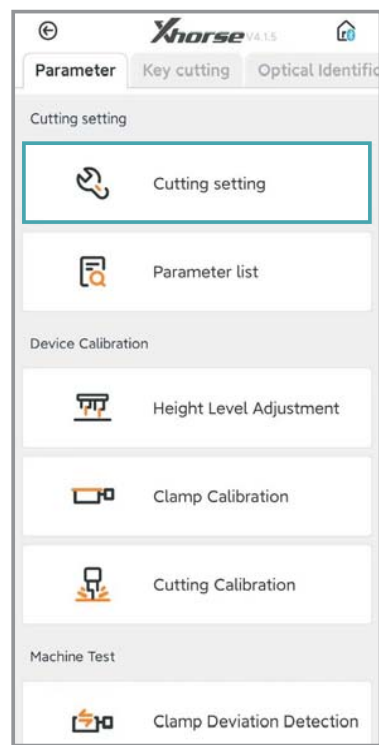


7) Select the correct diameter of cutter and click 'Setting cutter diameter'.

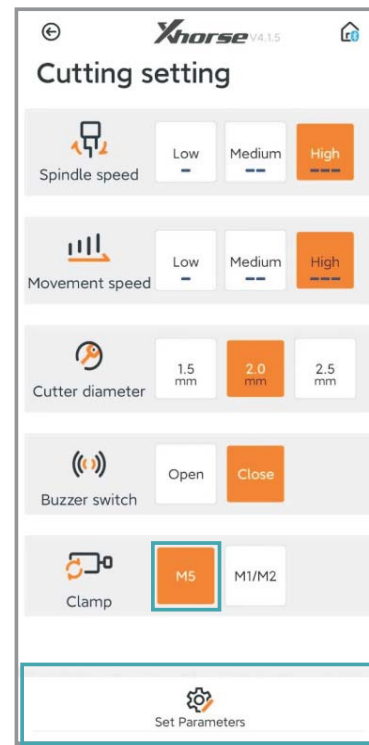
6.2 Height Level Adjustment (M5 Clamp)



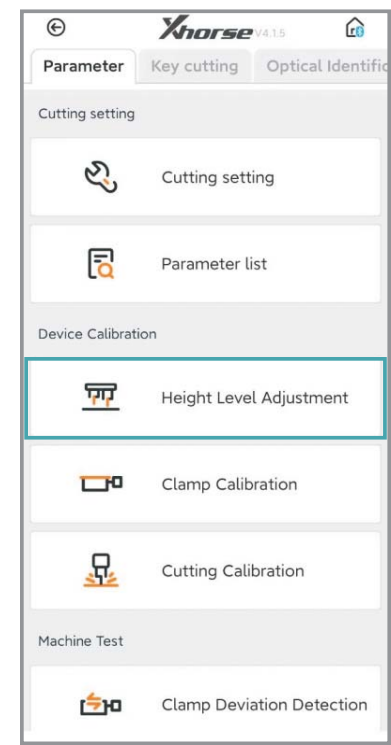
1) Enter Dolphin XP-005 operation main interface and click on 'Device Information'.



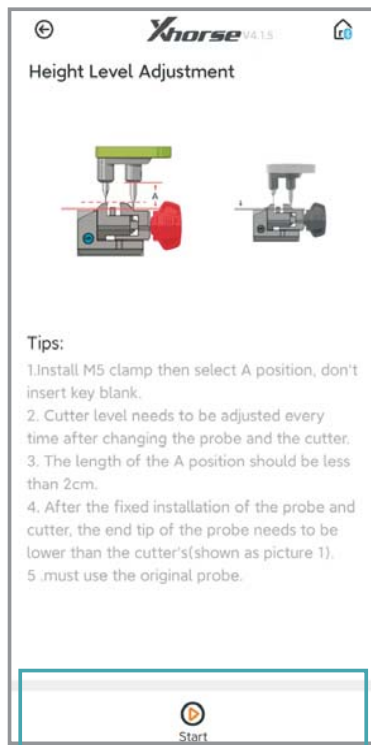
2) Click 'Cutting setting' to select clamp type.



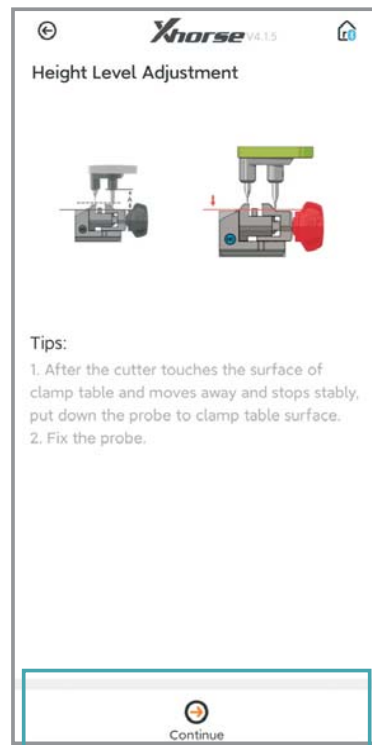
3) Select M5 clamp and click 'Set parameters'.



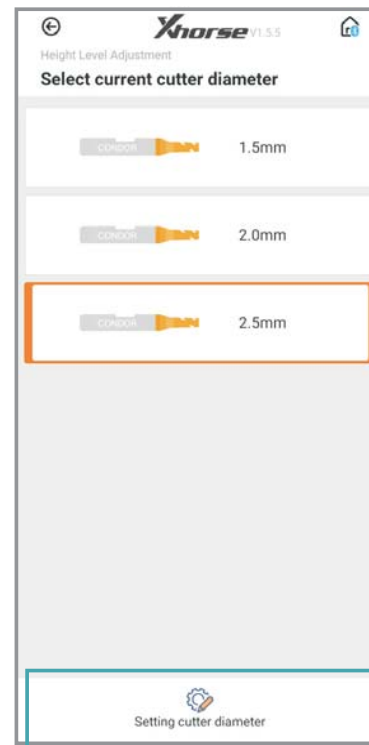
4) Click 'Height Level Adjustment'.



5) Read the tip and install the probe and cutter as the tip show, then click 'Start'.

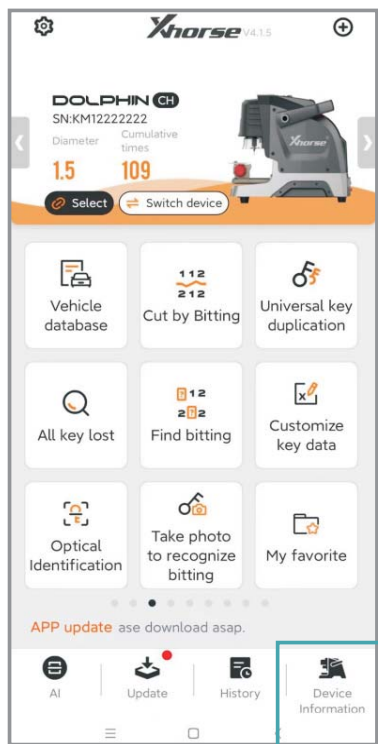


6) Read the tip and install the probe and cutter as the tip show, then click 'Continue'.

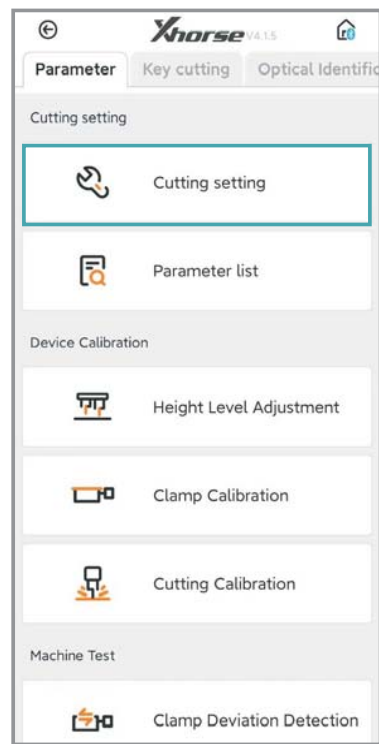


7) Select the correct diameter of cutter and click 'Setting cutter diameter'.

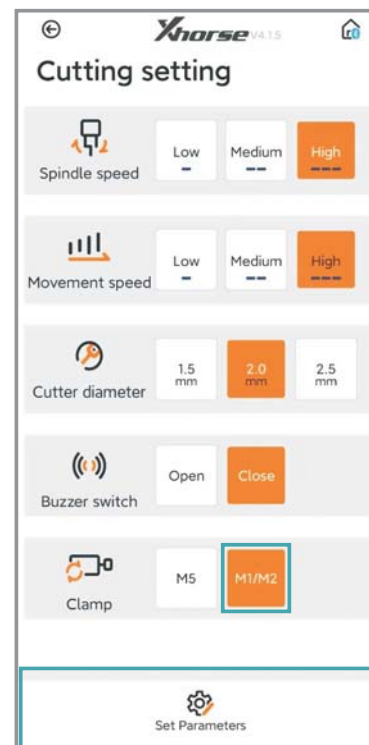
6.3 Clamp Calibration (M1/M2 Clamp)



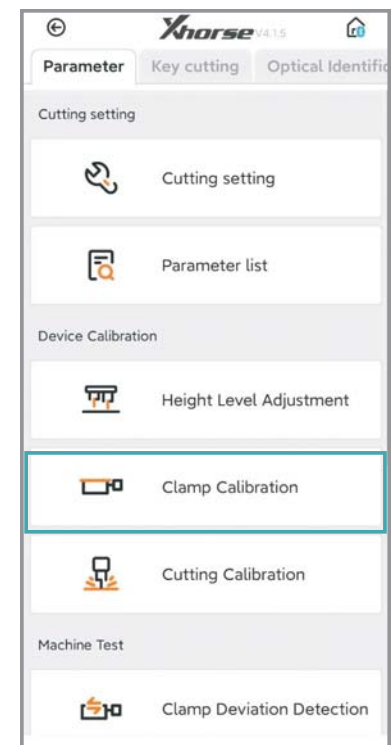
1) Enter Dolphin XP-005 operation main interface and click on 'Device Information'.



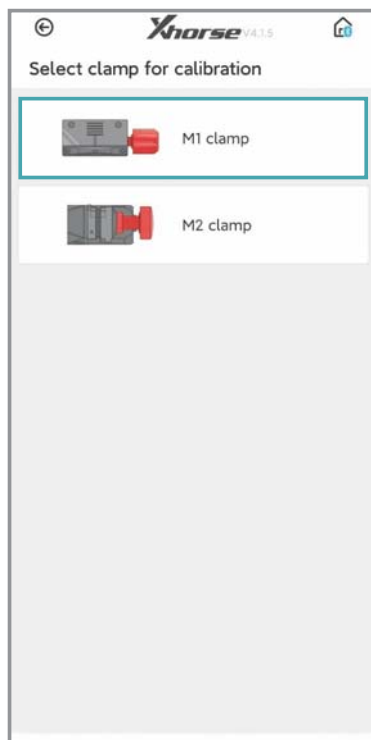
2) Click 'Cutting setting' to select clamp type.



3) Select M1/M2 clamp and click 'Set parameters'.



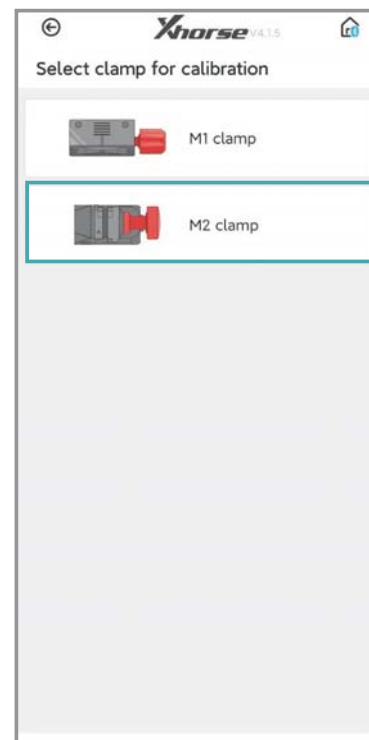
4) Click 'Clamp Calibration'.



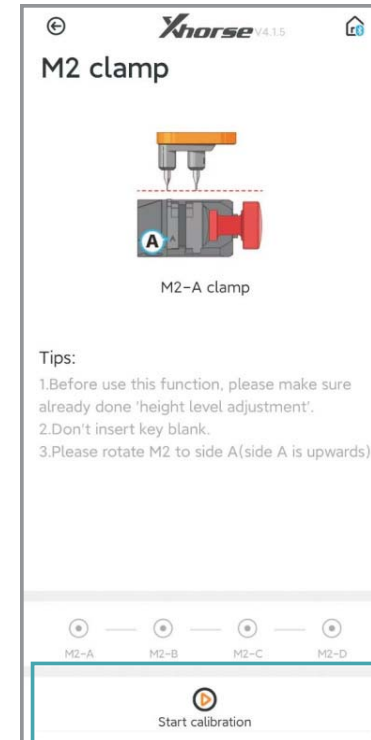
5) Select M1 clamp.



6) Read the tip and put the blank key HON66 as the tip shows, then click 'Start'.



7) Select M2 clamp.

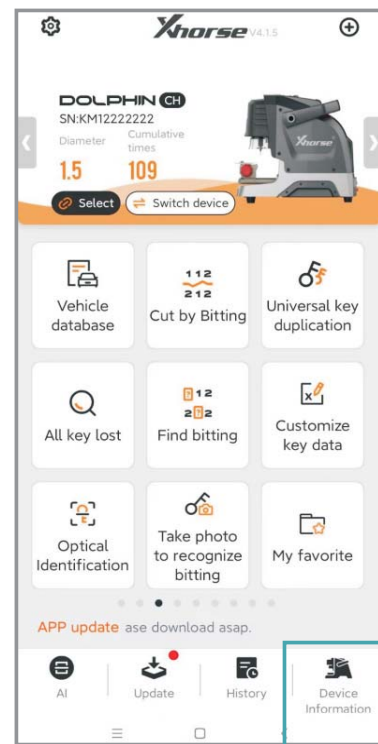


8) Read the tip to set the M2 clamp in surface A, then click 'Start' to calibrate the M2.

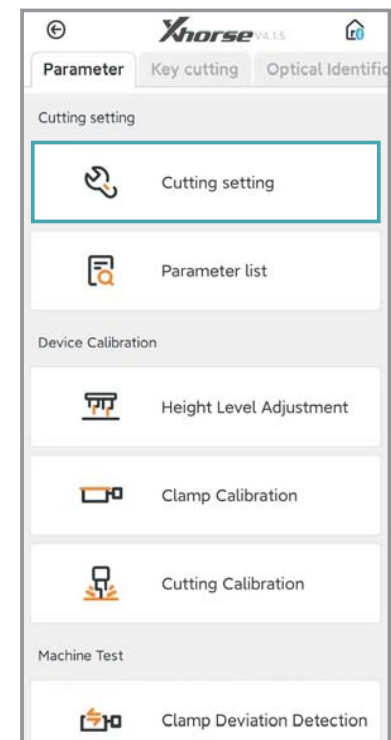


9) Rotate the M2 clamp to calibrate surface B, C, D.

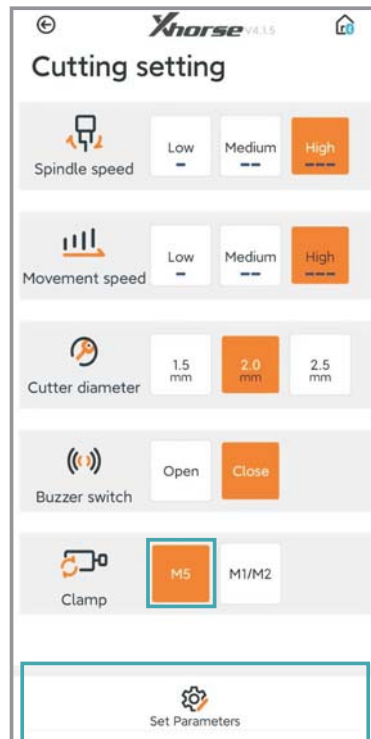
6.4 Height Calibration (M5 Clamp)



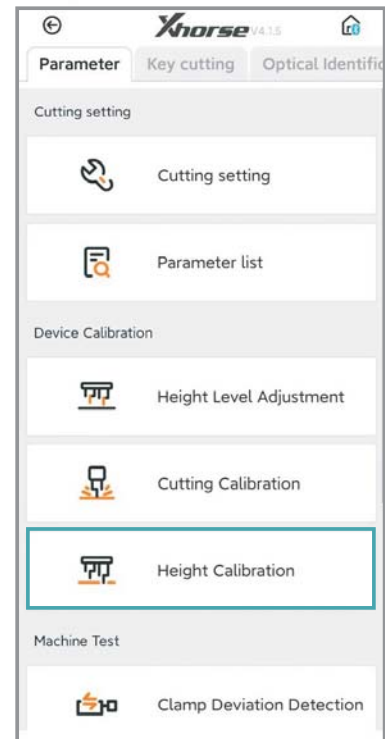
1) Enter Dolphin XP-005 operation main interface and click on 'Device Information'.



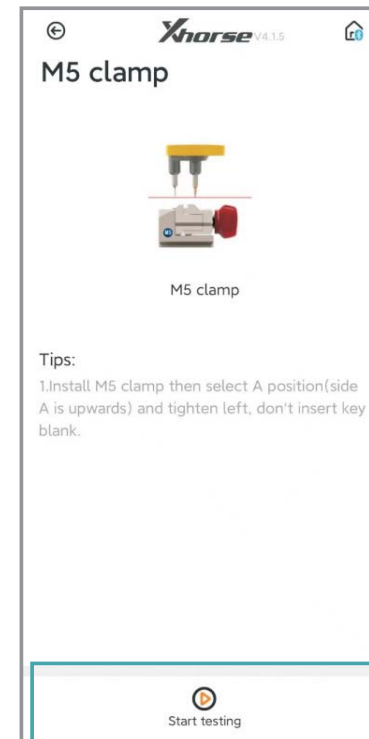
2) Click 'Cutting setting' to select clamp type.



3) Select M5 clamp and click 'Set parameters'.

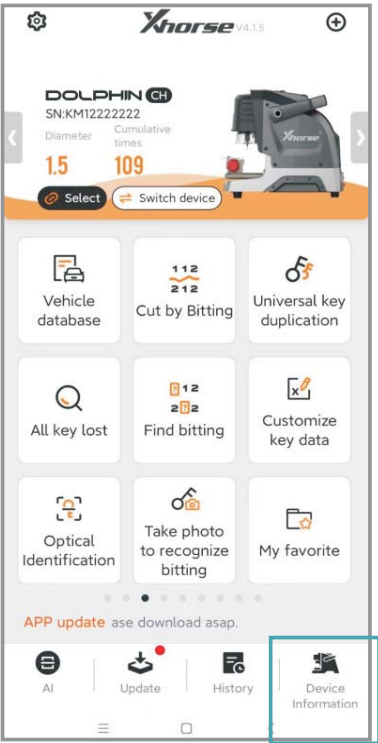


4) Click 'Height Calibration'.

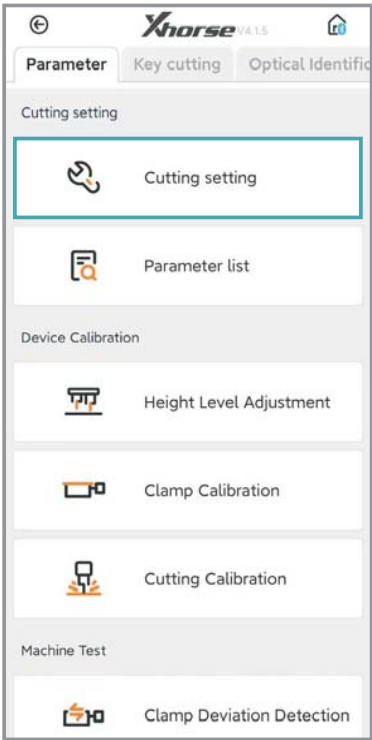


5) Read the tip and click 'Start testing' to do the height calibration.

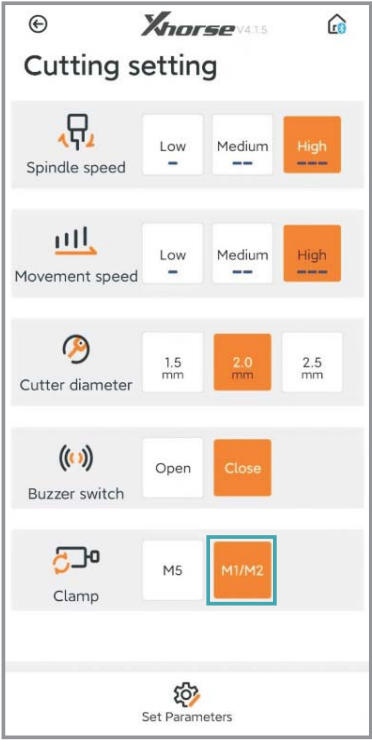
6.5 Cutting Calibration (M1 Clamp)



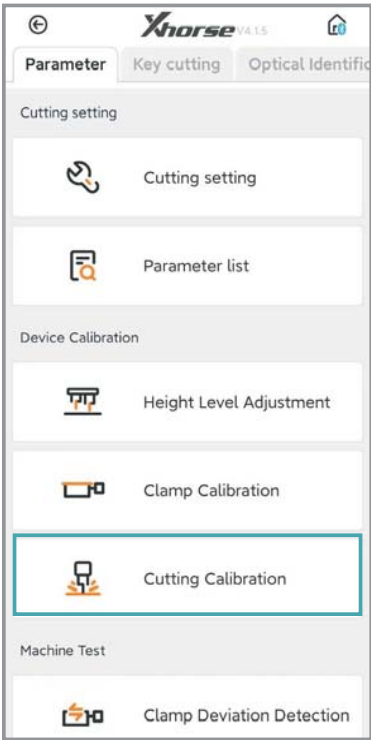
1) Enter Dolphin XP-005 operation main interface and click on 'Device Information'.



2) Click 'Cutting setting' to select clamp type.



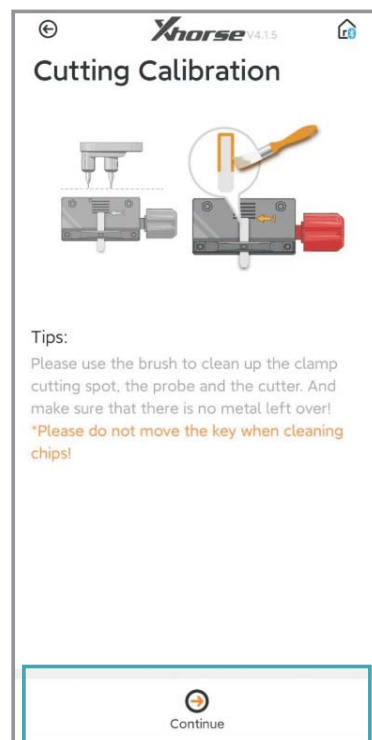
3) Select M1/M2 clamp and click 'Set parameters'.



4) Click 'Cutting Calibration'.

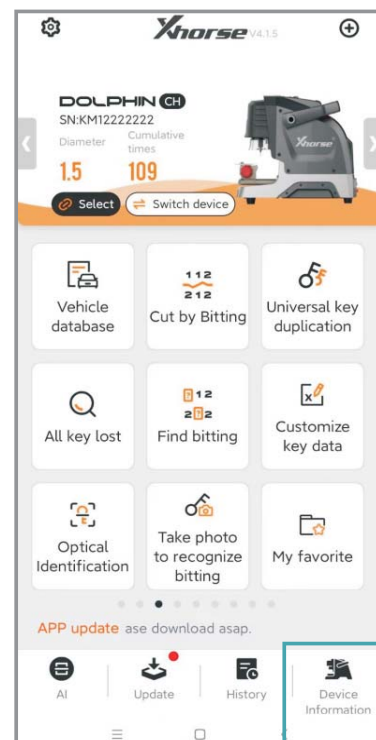


5) Read the tip and click 'Start calibration'.

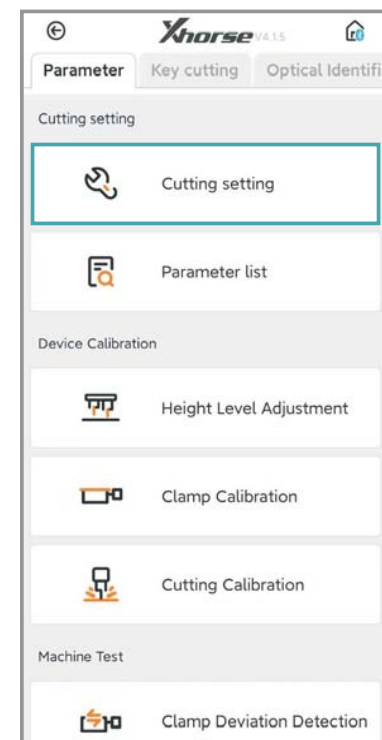


6) Read the tip and click 'Continue' to finish the cutting calibration.

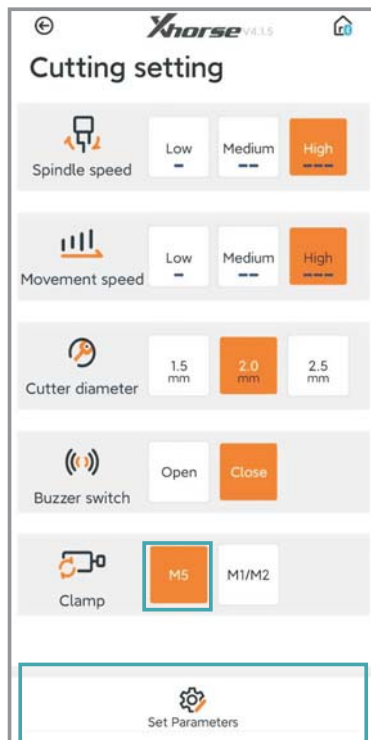
6.6 Cutting Calibration (M5 Clamp)



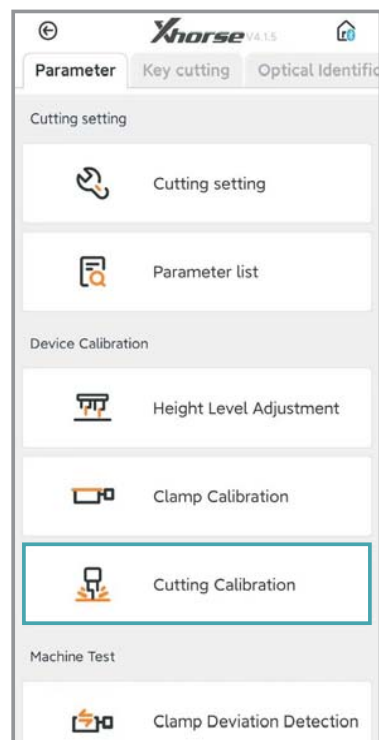
1) Enter Dolphin XP-005 operation main interface and click on 'Device Information'.



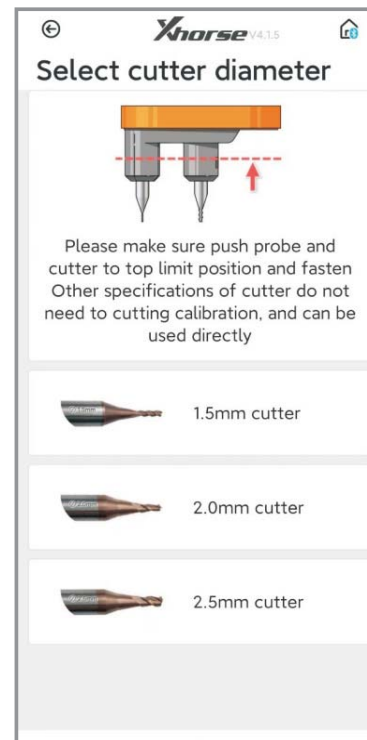
2) Click 'Cutting setting' to select clamp type.



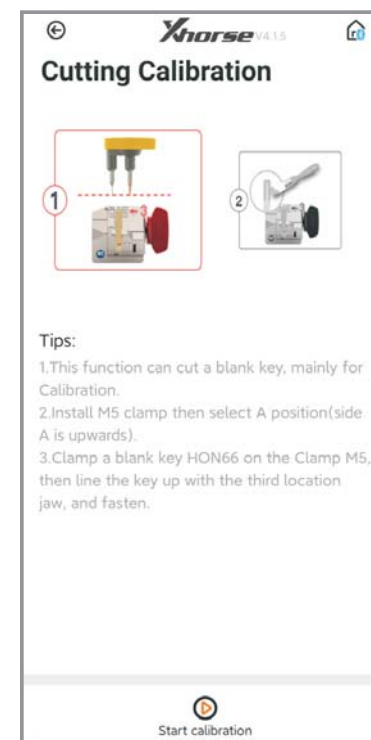
3) Select M5 clamp and click 'Set parameters'.



4) Click on 'Cutting Calibration'.



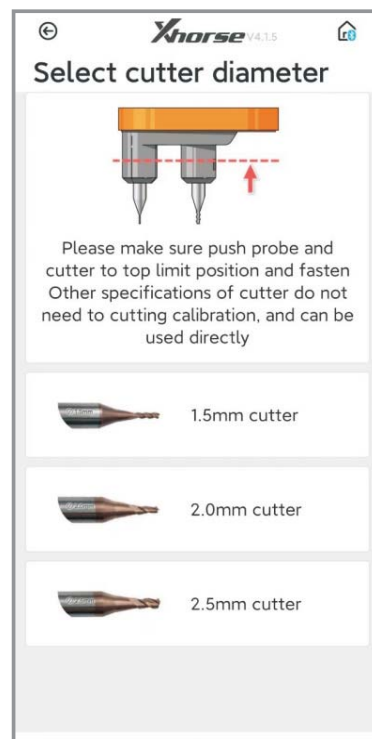
5) Select the correct diameter of cutter.



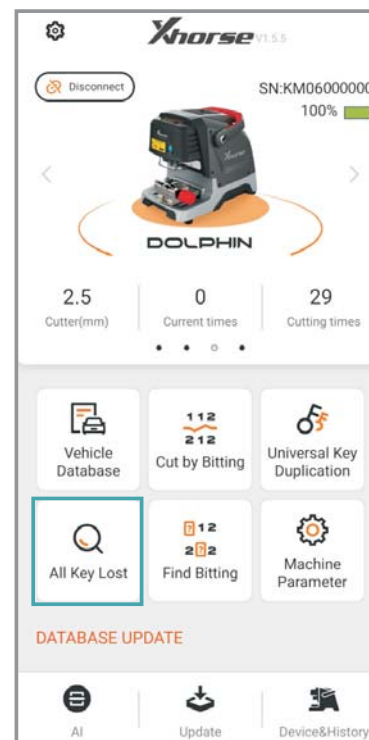
6) Read the tip and click 'Start calibration'.



7) Read the tip and click 'Continue' to finish the cutting calibration.



8) Operate by following the tips and click on 'Start'.



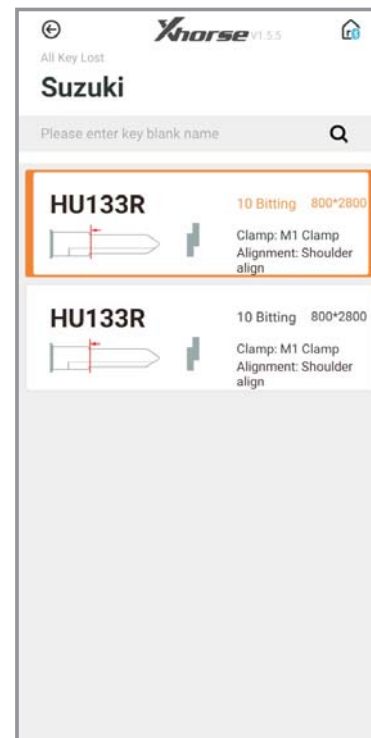
1) Click on 'All Key Lost'.



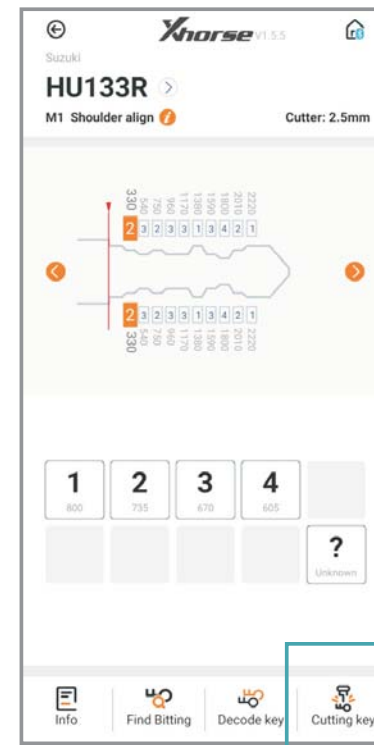
2) Select a car maker.



3) Put in the key code circled and click 'QUERY'.



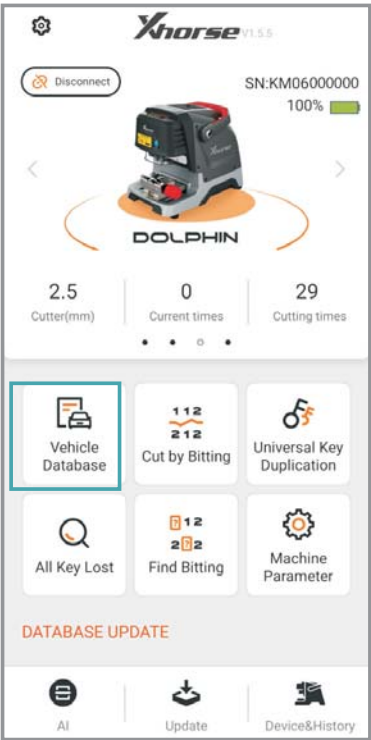
4) Select the key series.



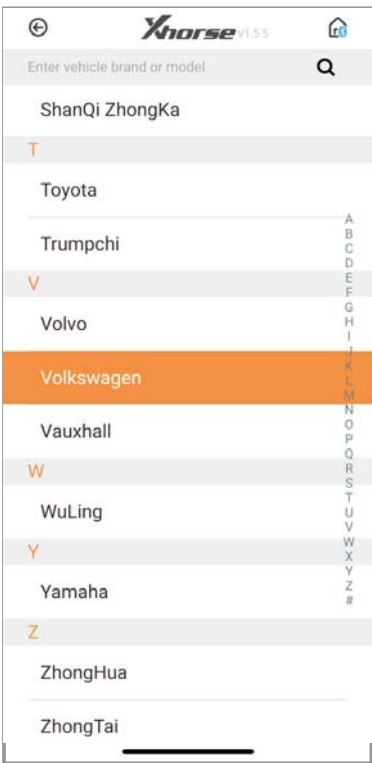
5) The key bit will be automatically generated on the screen, click 'Cutting Key'.

6.8 How to use key duplication

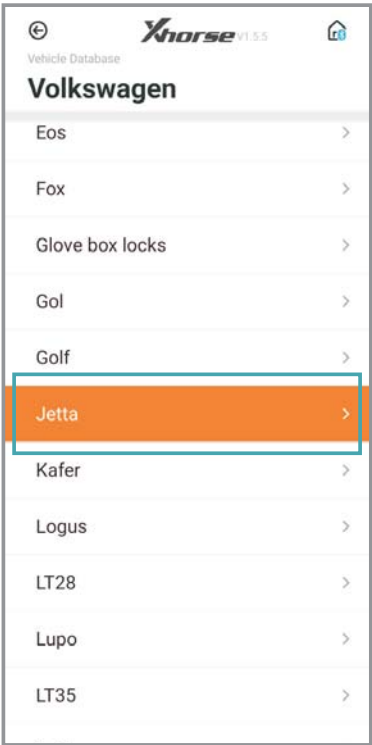
Car models and years are needed for key duplication



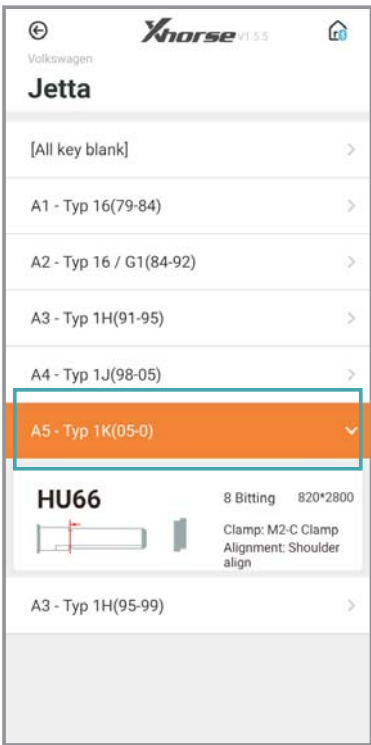
1) Click on 'Vehicle Database' on the main page.



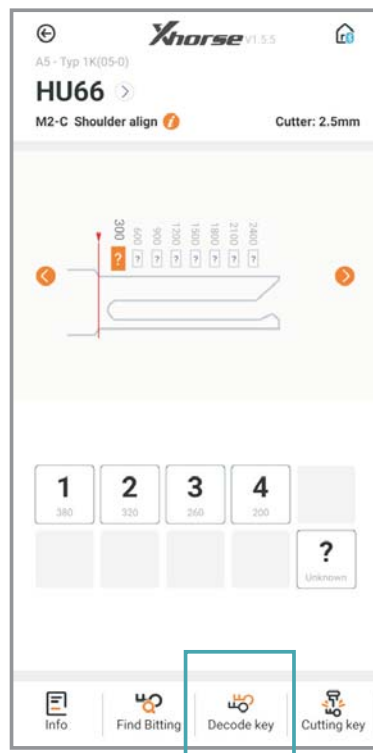
2) Select or type the car maker.



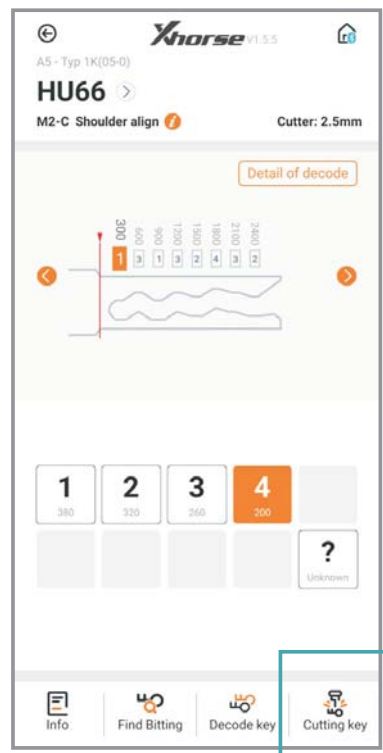
3) Select the car model.



4) Select the car model and year.



5) Follow the tips on screen and correctly put the key on the clamp, click 'Decode Key'.



6) After getting the original key bit, put a new blank key and click on 'Cutting Key'.

6.9 How to use cut by biting

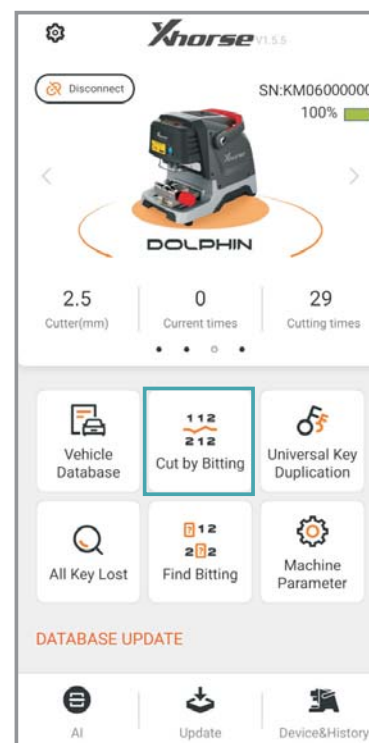
Two ways of using the key biting to make a key:

Method 1 :

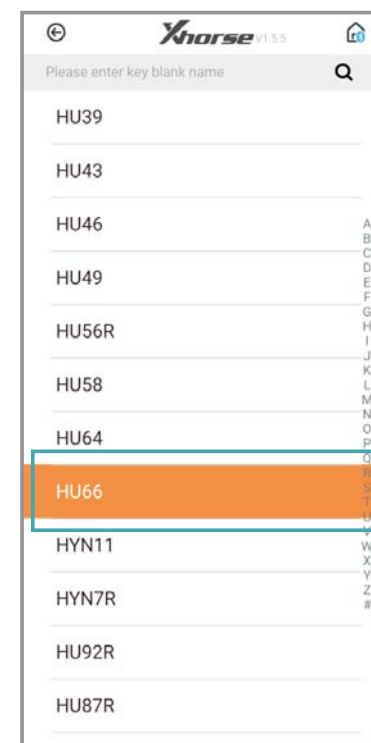
Making a key without the original key.

1. Use some special tool to get the key biting.

2. Break down the lock to read the key biting on each metal of lock.

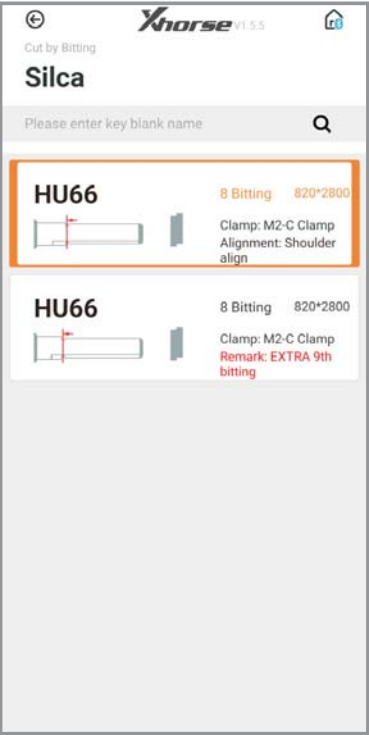


1) Click on 'Cut by Biting'.

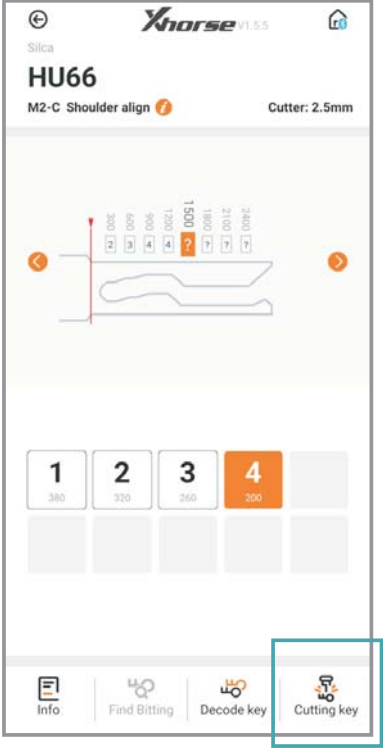


2) Select a key blank type.

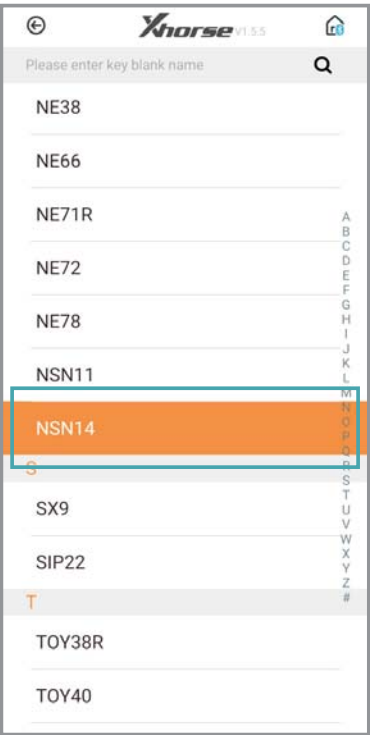
Method 2 :
Making a key with the original key.



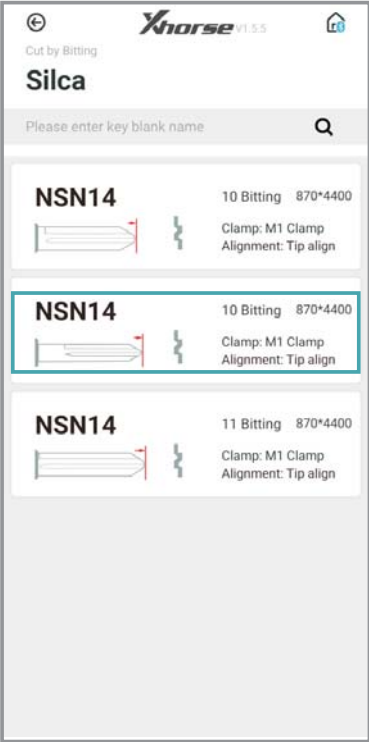
3) Select the key type.



4) Fix the key according to the picture show, select proper side of clamp and fix the key in correct position. Put in the key bitting and check all the information before you click on 'Cutting key' for make new key.



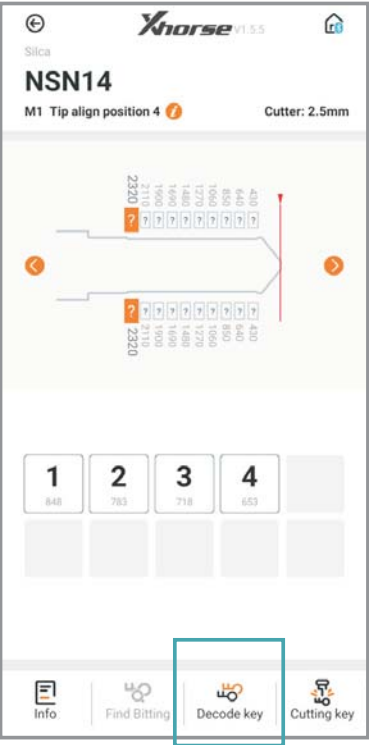
1) Click on 'Cut by Bitting' and select a key blank type.



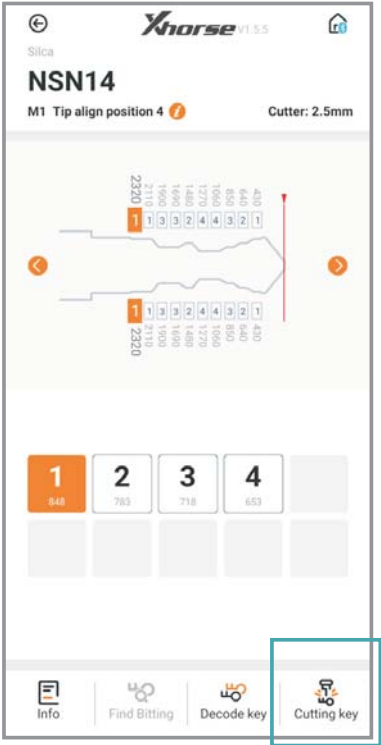
2) Select the key type.

6.10 How to use find biting

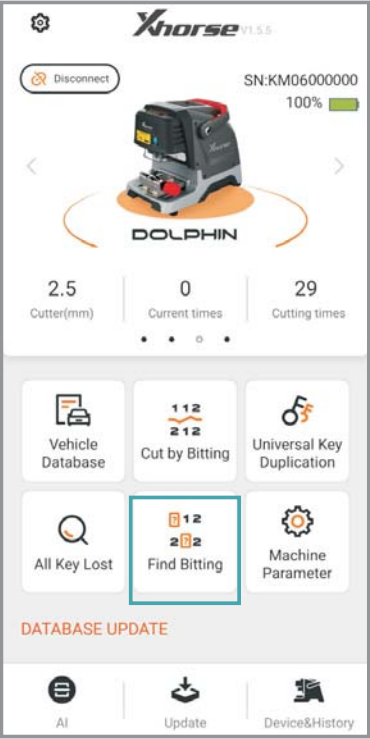
Parts of the cars are missing biting on door lock/trunk lock if compene with ignition lock. Users can find out the unknown biting and replace the unknown biting as “?”



3) Click on 'Decode Key' to duplicate key biting.



4) Click 'Cutting Key'.

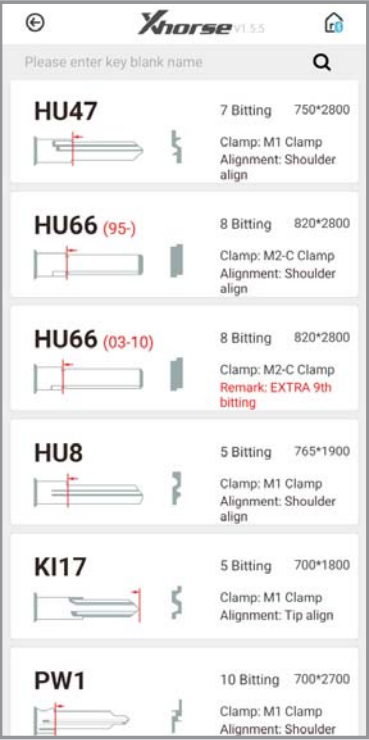


1) Click on 'Finding Biting'.

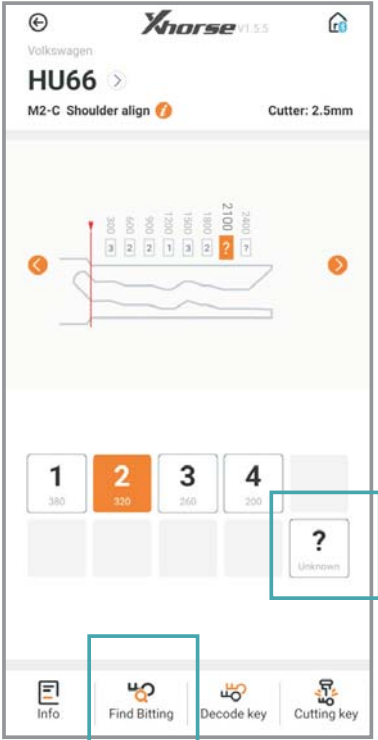


2) Select a car maker.

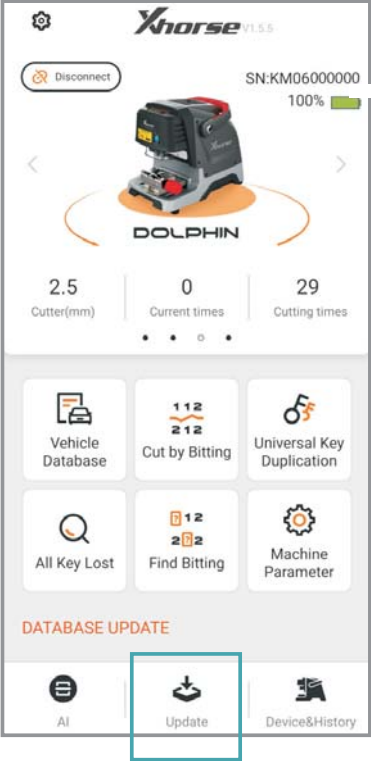
7. Online update
7.1 Database online update



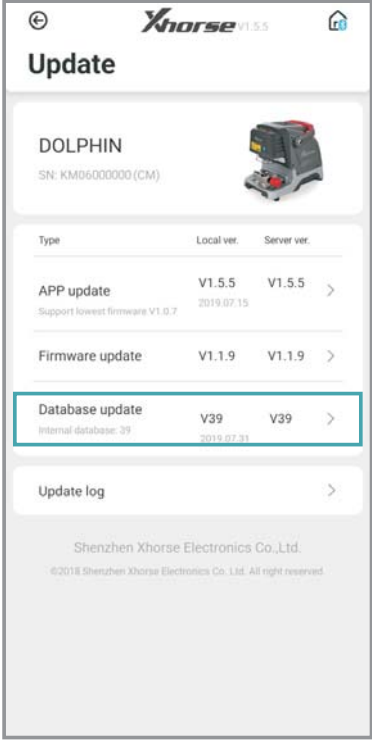
3) Select or put in the key blank type.



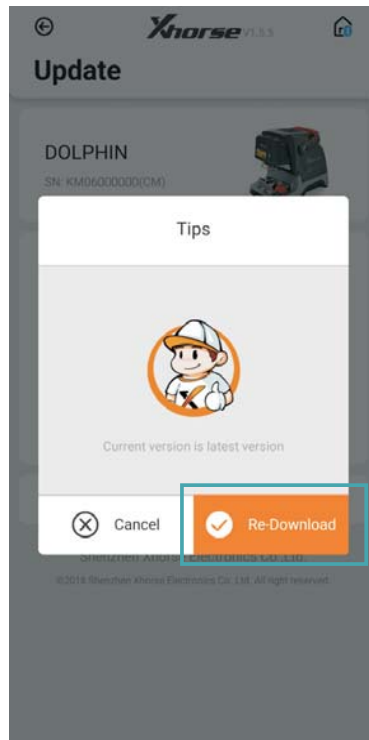
4) Put in the known bitting and replace unknown bitting as "?". Then click on 'Find Bitting'.



1) Enter Dolphin XP-005 main interface and click 'Update'.



2) Click 'Database update'.



3) If you find a new version, click 'Update' and download the new version. Click on 'OK' after download database success.

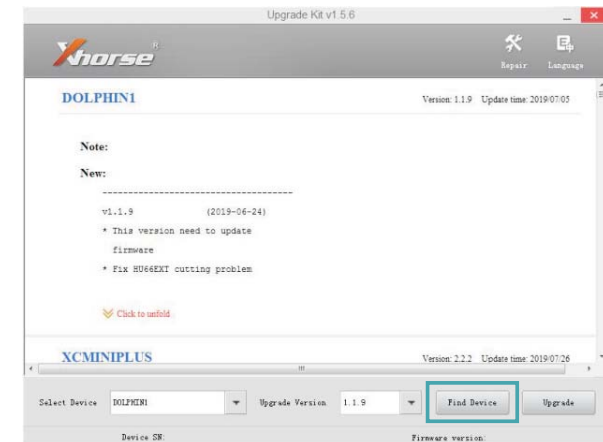
* If cellphone connected by mobile Internet data, a prompt saying that download maybe costs data fee, recommended downloading by WiFi.

7.2 Update by upgrade kit

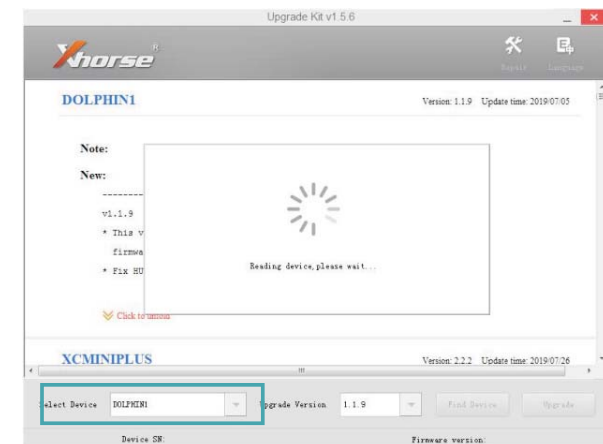
Three ways to get the update package:

1. Contact your distributor and ask for 'Upgrade Kit'
2. Send an email titled 'update tool' to support@xhorse.com
3. Consult with online customer service on Xhorse App.

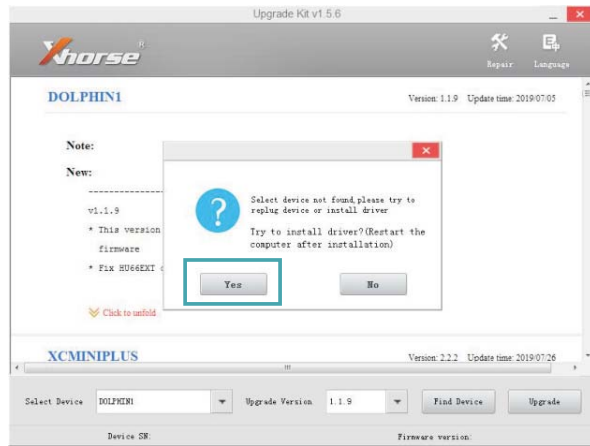
Steps to update both database and firmware with update package:



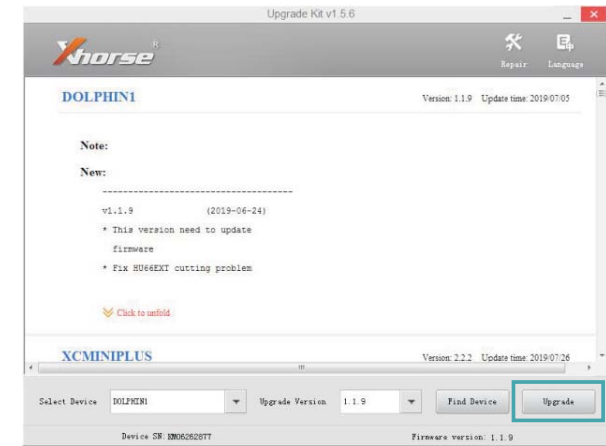
- 1) Connect the dolphin with a computer through USB cable, run 'Upgrade Kit', and click 'Find Device'.



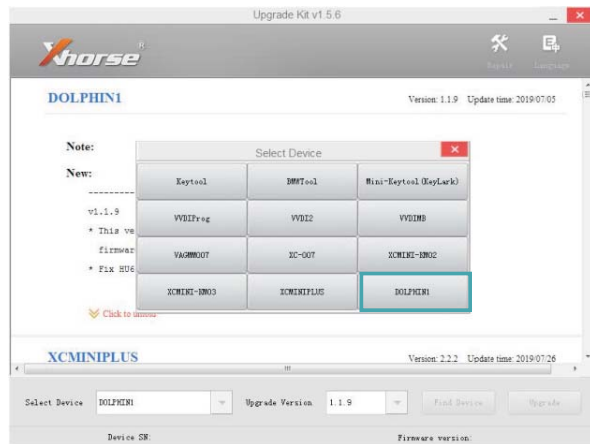
- 2) The connected device will be recognized and shown on left corner.



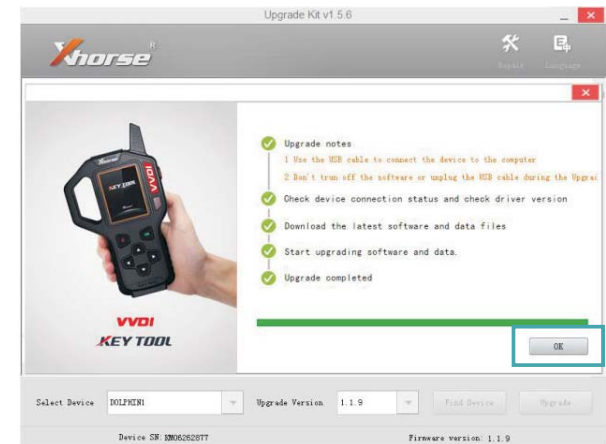
3) If the device cannot be found, follow the tips on screen and click 'Yes' to install driver.



5) When the dolphin machine is found, click 'Upgrade'.



4) Select DOLPHIN1 and install driver.



6) It takes a few minutes to complete upgrading. Please make sure the USB cable is always well connected when upgrading.

8. 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.

9. Warranty and after-sale description

DOLPHIN XP-005 has a warranty of 1 year for machine and six months for battery. The warranty starts from the date on invoice. If there is no invoice or the invoice is missing, purchase records from factory is used as reference.

Within Warranty, free maintenance and repairing is not provided if the machine becomes dysfunctional due to the following reasons:

- Operation without referring to or violating the user manual
- Modifications or repairs to the machine by individuals
- Falling, knocking or wrong voltage
- Force majeure
- Use of the machine in places such as ships that are bad for the machine for a long time
- Damaged or worn-out plastic case and protective shield due to frequent use

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.



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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.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes 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.

The device has been evaluated to meet general RF exposure requirement, The device can be used in portable exposure condition without restriction.

Federal Communication Commission (FCC) Radiation Exposure Statement

Power is so low that no RF exposure calculation is needed.