

DOLPHIN

Mini Mechanical Key Cutting Machine
XP-008

User Manual

V1.0

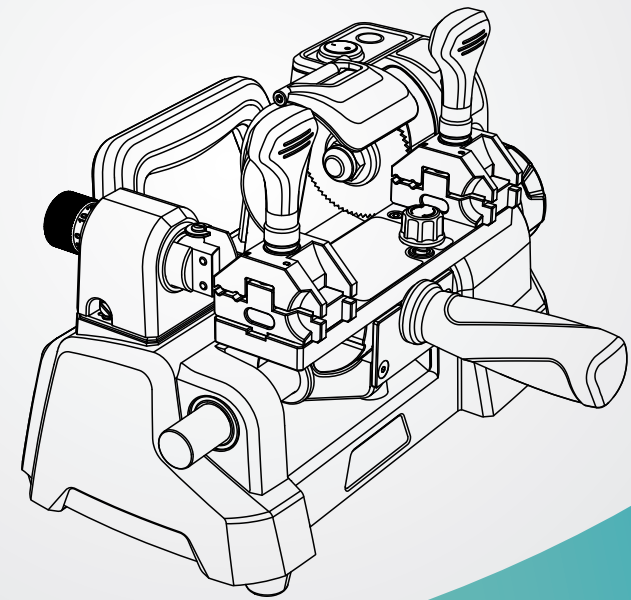
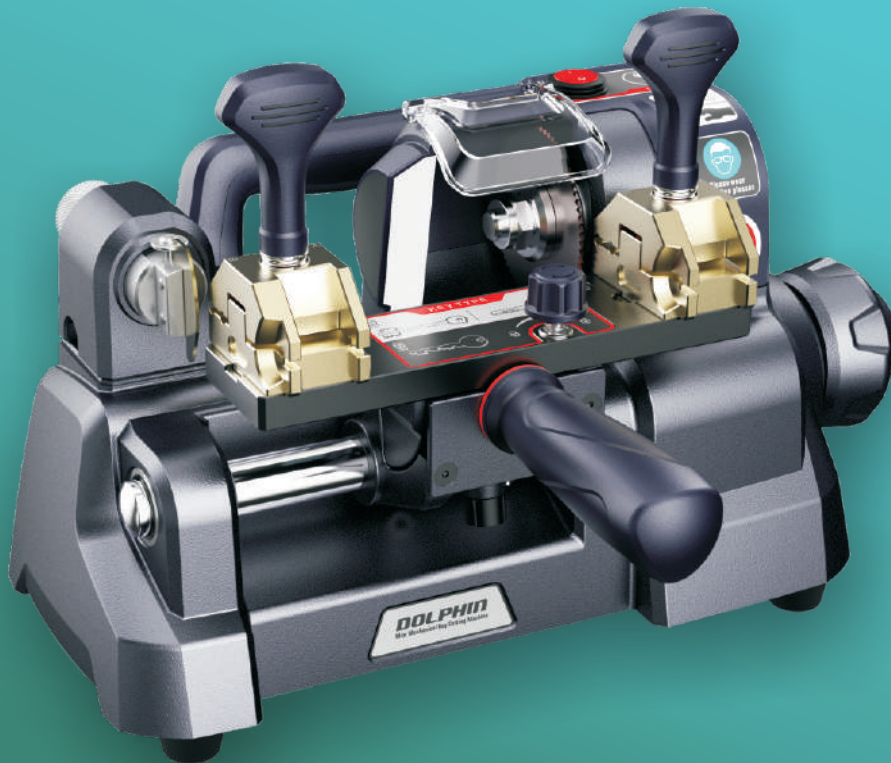


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Mini Mechanical Key Cutting Machine

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1. Safety precautions and warnings

To prevent personal injury or machine damage, users should carefully observe the instructions provided by this operation manual and adopt the following safety precautions:

- Use the machine under the safe condition
- Place the machine on a horizontal surface, which should be firm enough to carry the weight of the machine
- Do not exposure machine in scorching sun or place the machine in any wet, oily, dusty area
- Keep the machine clean and dry and keep a distance of 30cm from the wall for ventilation
- Wear safety glasses that meets ANSI standards
- When the machine is working, keep clothing, hair, etc. away from all moving parts
- Do not leave the machine while it is operating
- Do not place anything on the machine while it is operating
- Please do not use power plug that is out of power and loose
- Turn off the switch when the machine is not in use or in service
- Shut down the machine immediately when any exception occurs. The switch on the left side of the machine
- Keep the machine out of reach of children

2. General information

2.1 Machine description

Dear customers Thank you for choosing DOLPHIN XP-008 Mini Mechanical Key Cutting Machine.

DOLPHIN XP-008 Mini Mechanical Key Cutting Machine is a portable professional device specially designed for global locksmiths, It is small in volume light in weight and easy to carry, it can quickly and accurately duplicate and cut variety bit and pump keys.

Please read it carefully before use. It is crucially important if you wish to operate the machine safely and efficiently.









2.2 Machine characteristics










DOLPHIN XP-008 is a new generation of Mini Mechanical Key Cutting Machine with the following features:

- New industrial design, more contemporary and technology feeling
- Ergonomics designed more comfortable simple and convenient
- Integrated casting aluminum structure durable
- Small size, light weight, compact body
- Support all directions micro-adjustment for high-precision cutting requirements
- 0-45° rotating bench, support keys with different inclination angles
- The main and auxiliary clamps have an ultra-wide clamping range and support keys of various lengths and specifications.
- Rotatable four-position clamp, supports various types of keys

3. Product packaging checklist

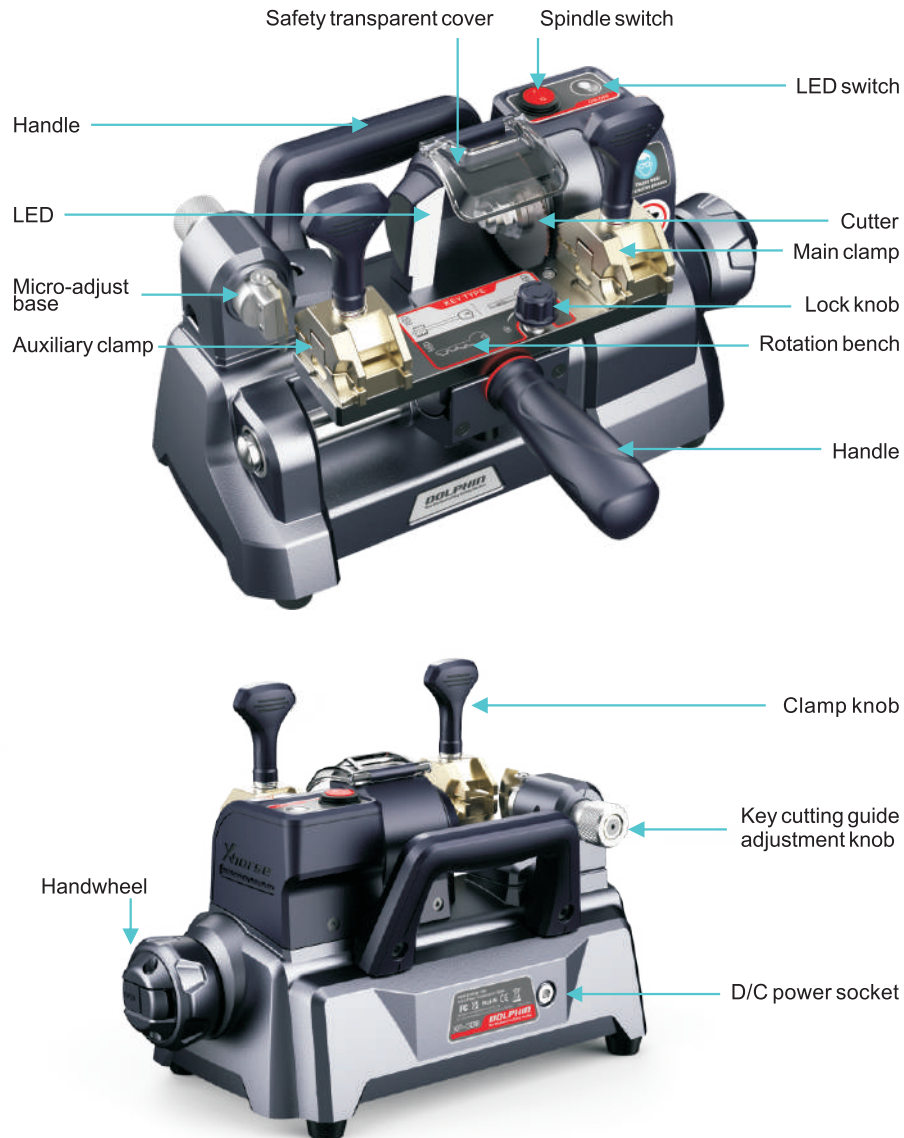
DOLPHIN XP-008 should come with accessories listed in the following table. Please have a check when you get this product and contact your distributor if anything in the table is missing.

Name	Sample picture	Quantity	Description
Machine		1	key cutting machine
19mm wrench		1	Used to exchange the cutter
Φ70*1.3 plate		1	Calibrate the key cutting guide
Φ6*200 calibration rod		1	Tool for exchange cutter and calibrate key cutting guide
2.5mm hexagon bar wrench		1	Tool for removing
3mm hexagon bar wrench		1	Tool for removing
4mm hexagon bar wrench		1	Tool for trimming slide
5mm hexagon bar wrench		1	Tool for trimming slide

Power Adapter		1	Charger unit
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
Steel brush		1	Tool for deburring
Brush		1	Cleaning tool
Quality certificate and Product Packaging Checklist		1	Factory inspection report and packing list
User manual		1	Machine assembly/adjustment operation instruction

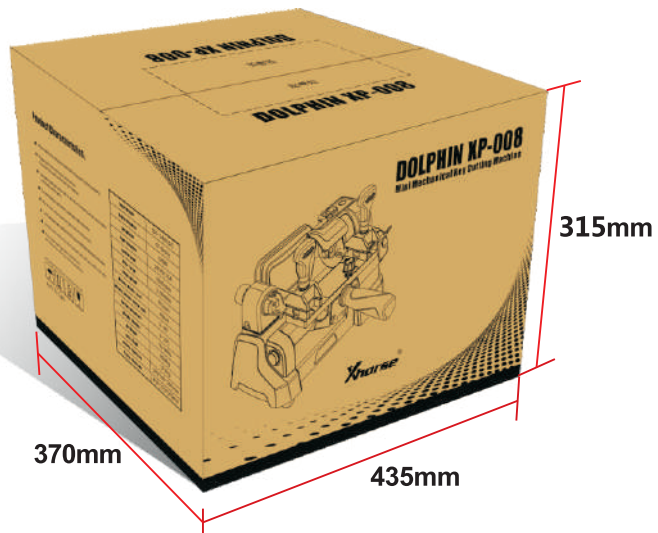
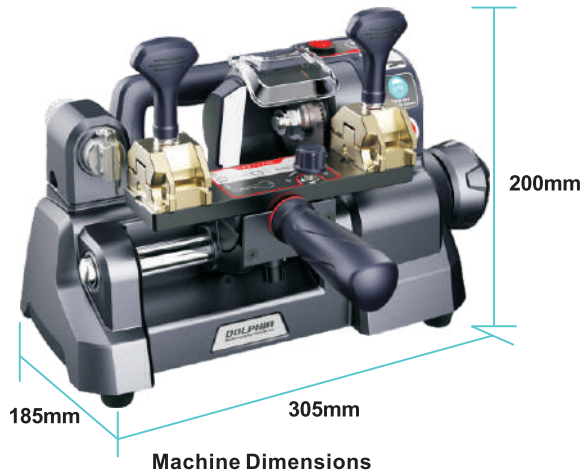
4. Overview

4.1 Structure diagram



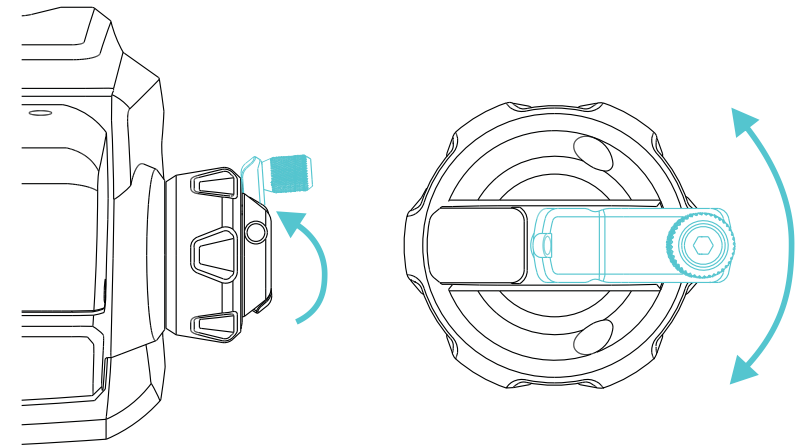
4.2 Product Specifications

Input Voltage	100-240V AC
Input frequency	47-63Hz
Consume	160W
Battery capacity	24VDC/6.7A
Spindle speed	1040rpm
Motor Torque	0.764Nm
Clamp Spacing	115mm
Table travel	46mm
Clamp rotation angle	0-45°
Working Temperature	0-50°C
Working Humidity	10-90%
Net weight	10.8kg
Gross weight	12.5kg
Machine Dimensions	305mm*185mm*200mm
Packing Dimensions	435mm*370mm*315mm



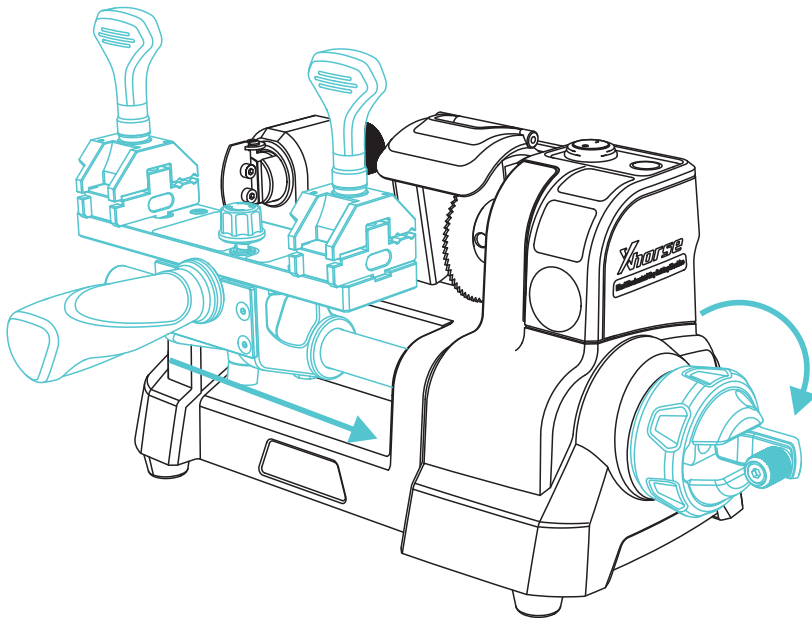
4.3 Main parts and function description

4.3.1 Hand wheel



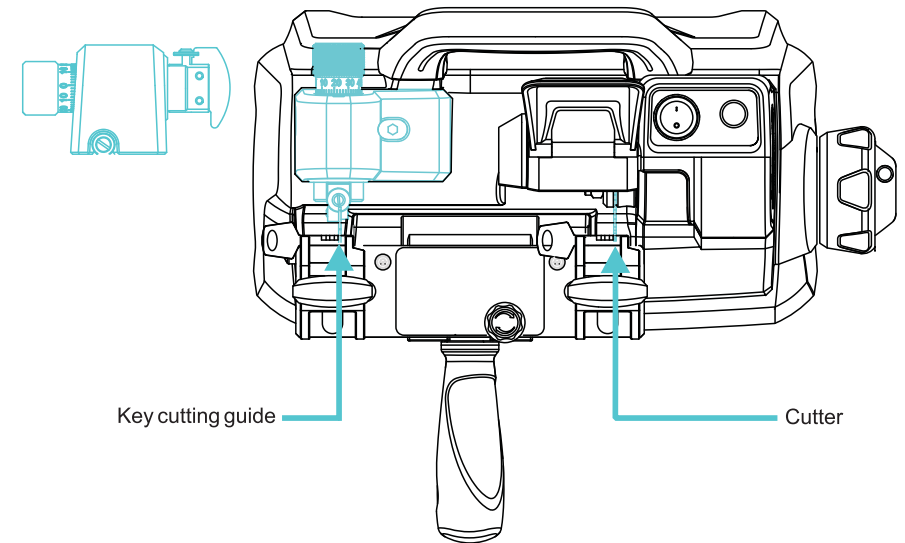
Unscrew the small hand wheel and turn the small hand wheel to achieve cutting feed. By rotating the hand wheel, the clamp slide can be controlled to move left and right, so as to achieve lateral feed during the cutting of the key. The hand wheel adopts a concealed structure, which opens outward when in use and can be hidden after use.

4.3.2 Sliding platform



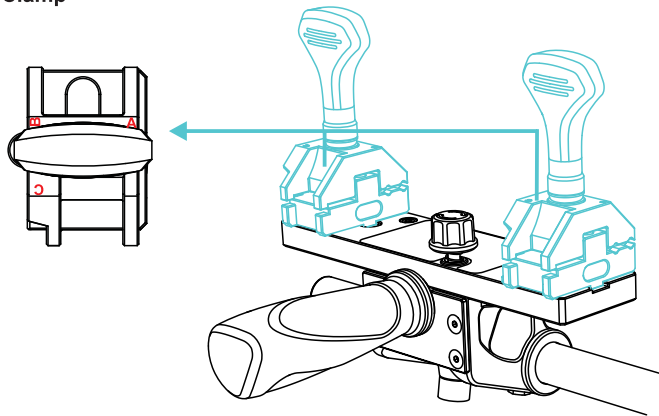
The clamp slide platform can adjust the angle of the key and move horizontally by adjusting the rotation handle and the right hand wheel. When the handle is rotated clockwise, the rotation angle of the key can be adjusted, and the adjustable range is 0-45°. When the cutting key does not need any angle adjustment, just tighten the lock knob clockwise until the knob is locked, the rotation angle is 0 at this time, adjust the handle up and down to the appropriate position then cut the key. The horizontal stroke of the slide platform is 46mm, and the clamp spacing is 115mm.

4.3.3 Micro-adjust base



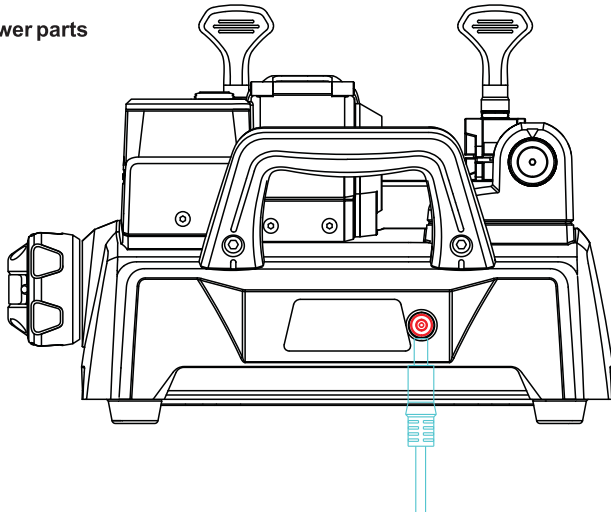
Adjust the Micro-adjust base to align the key cutting guide with the cutter (the horizontal, vertical, and height must be consistent). Usually no need to adjust above parts again, the machine has been adjusted to the best position before shipping out.

4.3.4 Clamp



Allocation and clamp the key, there are 4 sides to choose for duplication different key types. The left side is auxiliary clamp, where the original key is placed, and the right side is main clamp, where the new key blank is placed. Please ensure the main and auxiliary clamp use the same side. The clamp is a rotatable 4-position clamp, which is marked with A, B, and C to distinguish. Choose the appropriate clamp side according to different types of keys (for details, please refer to 6.1 clamp side selection). Be sure to tighten the key at the same side and alignment position.

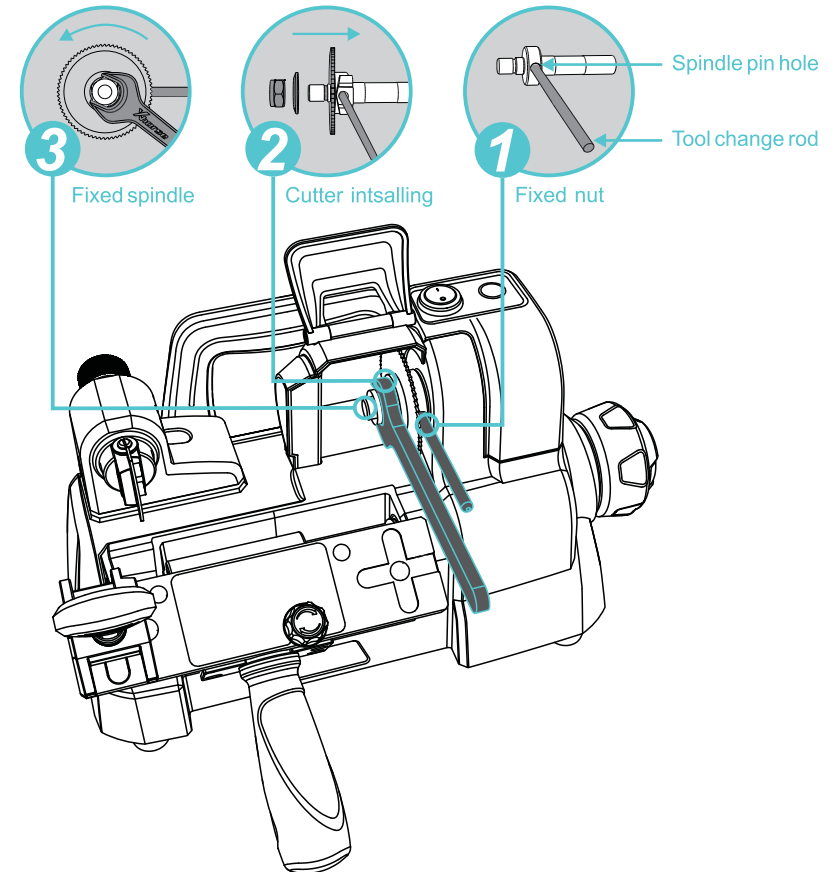
4.3.5 Power parts



There is a power socket at the rear of the machine, Please use 24VDC/6.7A standard equipped power adapter and power cord. Please use a safety power outlet with a ground wire. Please unplug the power supply if the machine long time not in use.

5. Equipment installing and setting

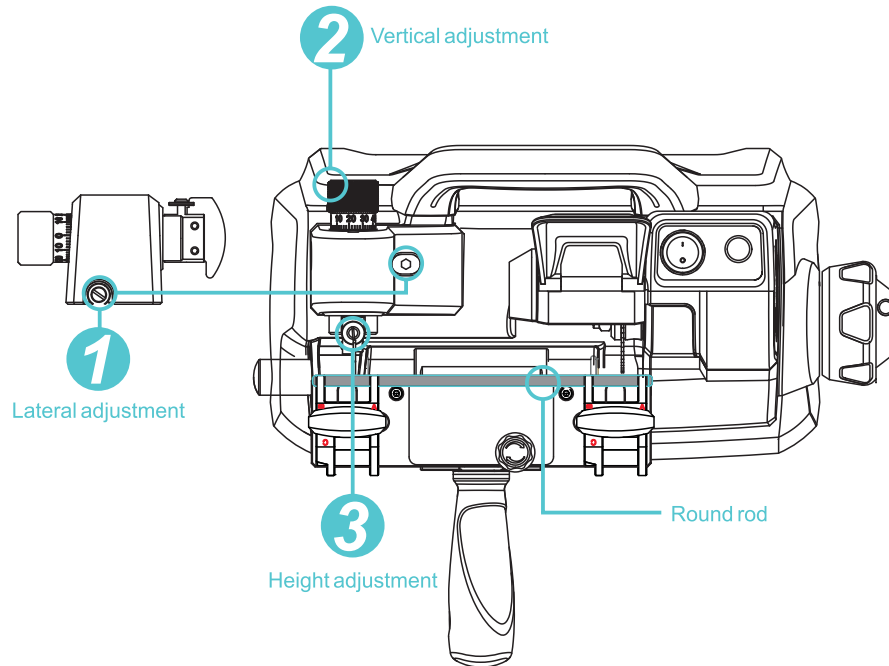
5.1 cutter installing



- 1) While the machine is stopped, slowly rotate the spindle, turn the spindle pin hole out, insert the tool change rod to the spindle pin hole.
- 2) Installing the cutter on the spindle. Pay attention to the front and back surface of the cutter (with the word facing left) install the cutter block and lock nut (anti-nut)
- 3) Use the 19mm wrench to tighten the lock screw counterclockwise. Then pull out the tool change rod. After installing the cutter, please refer to chapter 5.3 Micro-adjust slide calibration.

5.2 Micro-adjust base calibration

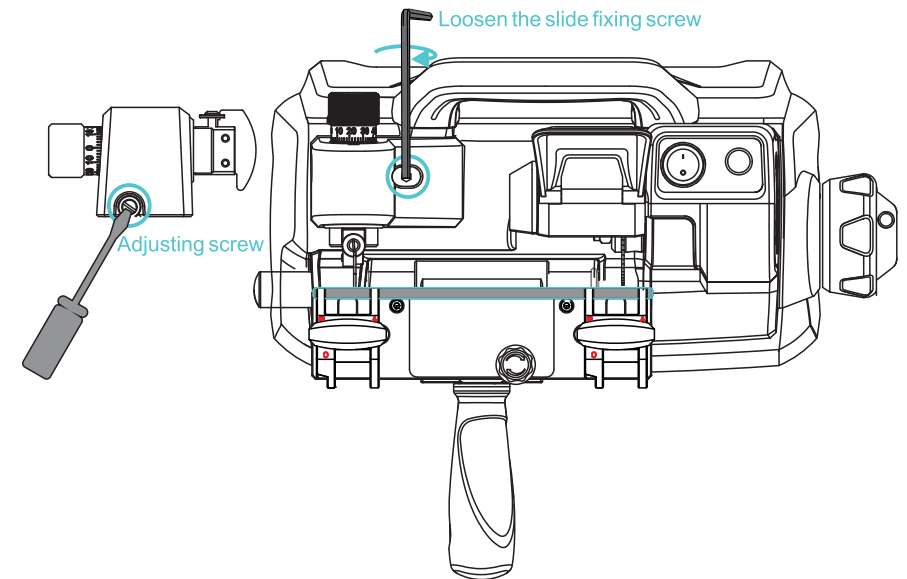
Micro-adjust base calibration has been finished in the factory. If deviation or incorrect operations occurred please adjust as follows.



First, you need to remove the cutter, install the standard plate (the installation method is the same as the cutter installation), rotate the two clamps to the A side, do lateral calibration and adjustment, then install the round rod (tool change rod) by two clamps, and adjust the vertical and height directions of the Micro-adjust base respectively. Please refer to the following adjustment method for details.

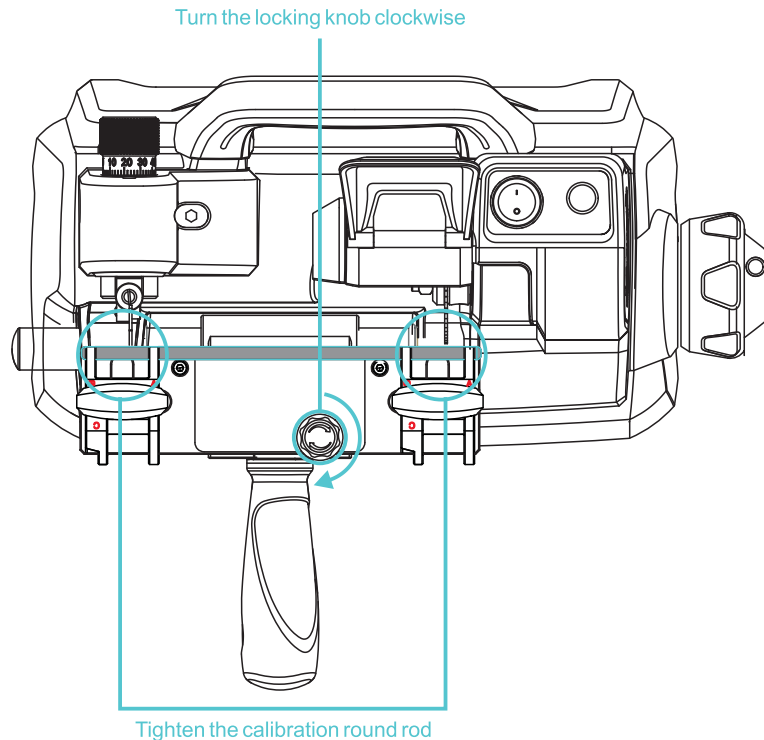
5.2.1 Lateral adjustment of Micro-adjust base

When performing lateral adjustment, rotate the main and auxiliary clamps to side A, turn the locking knob clockwise to keep the angle rotation of the clamps locked. Rotate the handwheel and adjust the handle up and down at the same time until the calibration plate touch the rightmost position of the A side of the auxiliary clamp. Slightly loosen the fixing screw of the sliding seat, and use the Allen wrench to slowly adjust the left adjusting screw, to make the left side of the cutter is just close to the rightmost position of the A side of the auxiliary clamp.



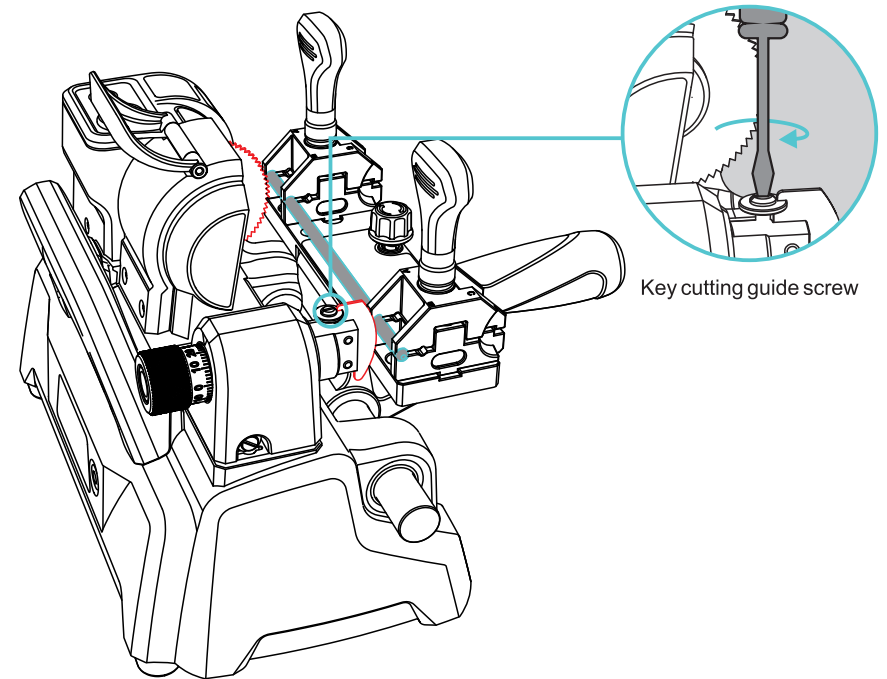
5.2.2 Vertical adjustment of micro-adjust base

Vertical micro-adjust base calibration, adjust the main and auxiliary clamps to side A, tighten the calibration rod at the external groove position of both clamps side A, rotate the locking knob clockwise to keep the angle rotation of the clamp in a locked state. Rotate the hand wheel and adjust the handle at the same time until the side of the Cutter is touched the calibration rod. There is a built-in elastic device inside the Micro- profiling seat. it is necessary to withstand the key cutting guide and adjust the dial of the rotating Micro-adjust slide to ensure that the key cutting guide closely touched with the calibration rod (no elastic shrinkage). rotate the dial 1 small lattice the key cutting guide moves 0.02mm than before.

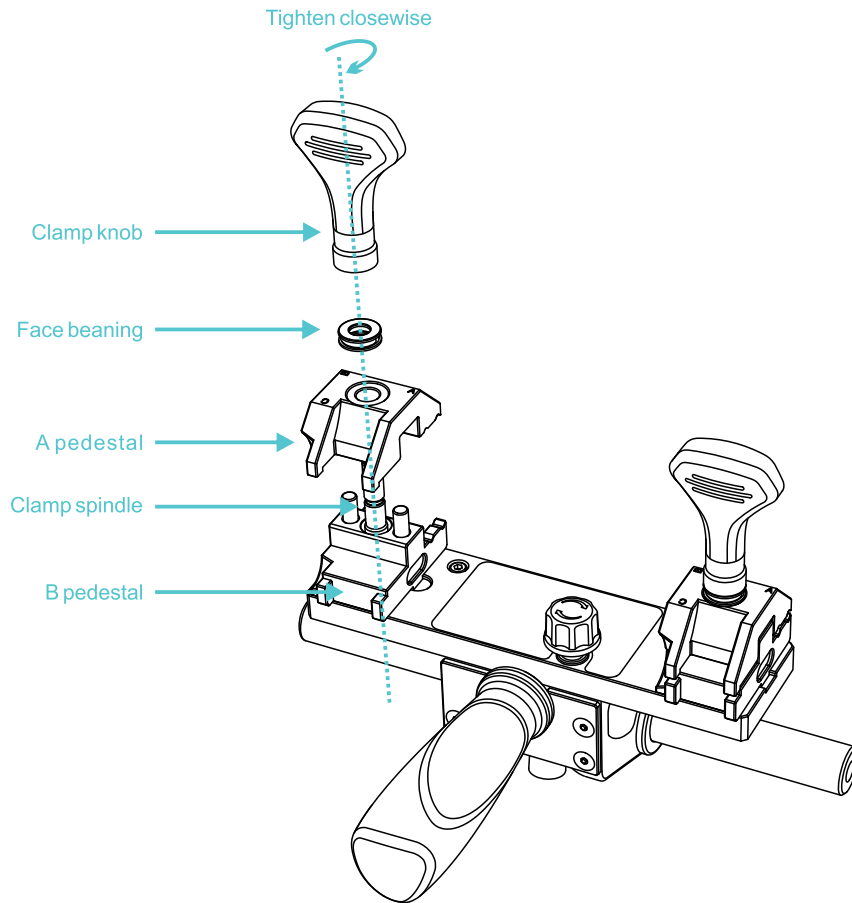


5.2.3 Height adjustment of the key cutting guide

When adjusting the height, rotate the main and auxiliary clamps to the side A, turn the locking knob counterclockwise to keep the angle rotation of the clamps in a loose state. Move the clamp slide ensure the calibration plate is located in the A and B distance, and touch the calibration rod. Adjust the 2 screws on the right side of the key cutting guide, the height of the key cutting guide can be adjusted. Rotate the handle to adjust the angle of the slide table to ensure that the key cutting guide and the plate contact the round bar synchronously during the rotation of the slide table, and the specific adjustment can refer to the position of the slide table at 0 and 45°.



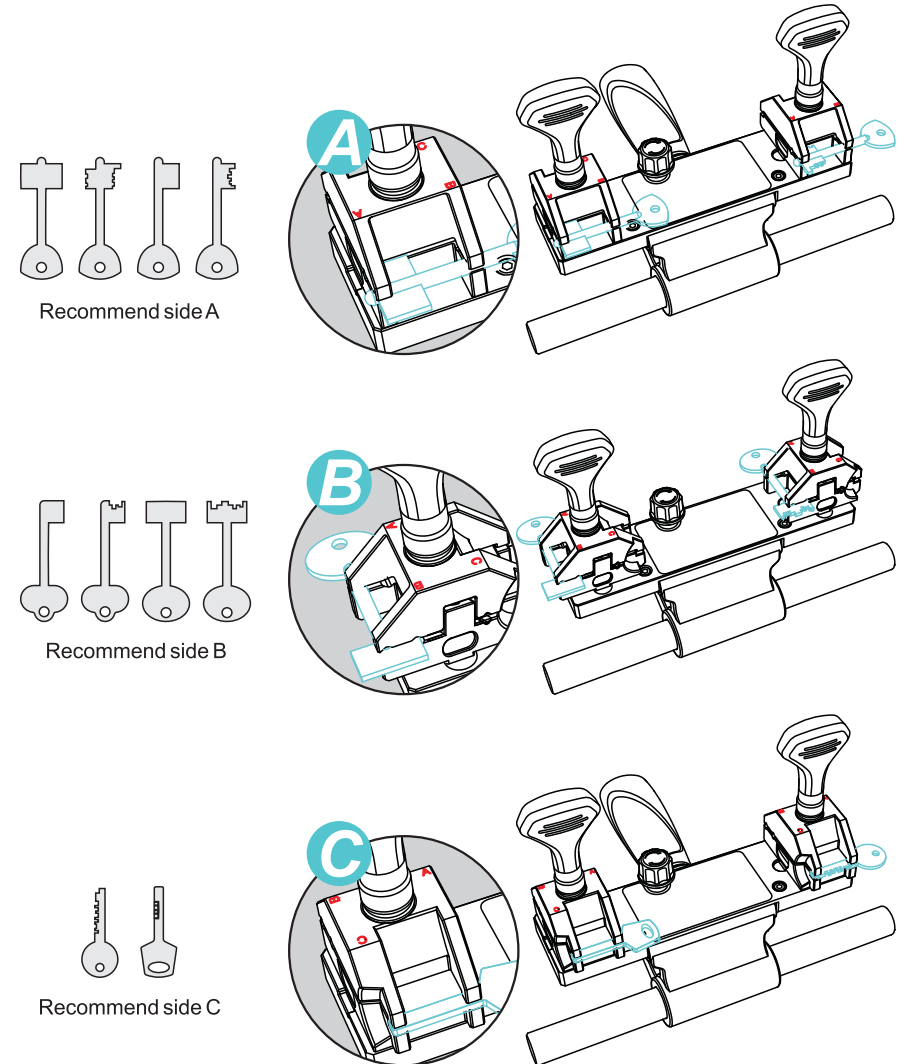
5.3 Clamp installing



Do not remove the clamp under normal condition. If it is accidentally disassembled, please install according to the above figure. Pay attention to the clamp surface, otherwise it will not work normally.

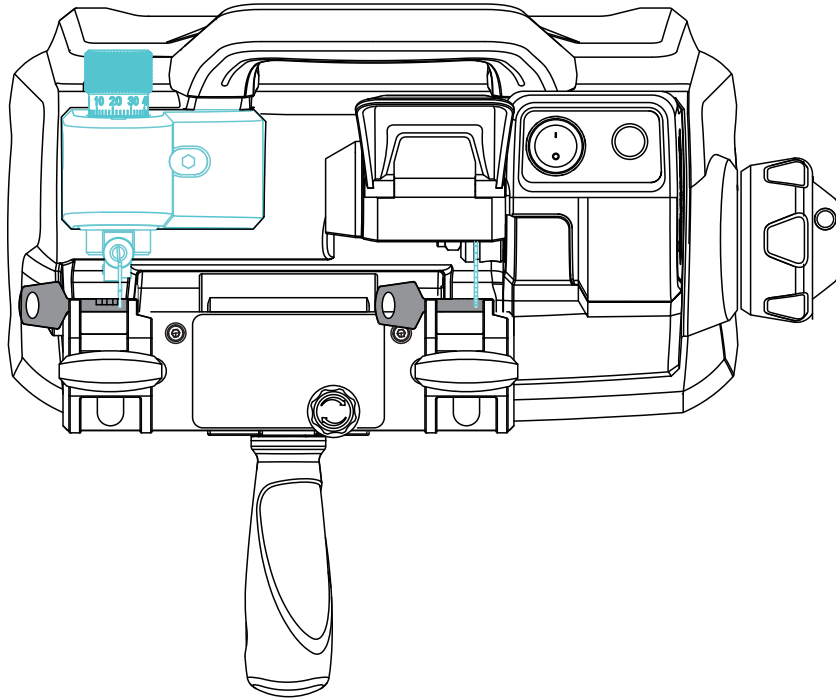
6. Machine operation

6.1 Clamp cutting side selection



The clamps are marked with A, B, and C surfaces. Refer to above key types to select proper clamp side. The clamp side should ensure that the key clamping is stable and reliable, convenient to cut.

6.2 Key alignment

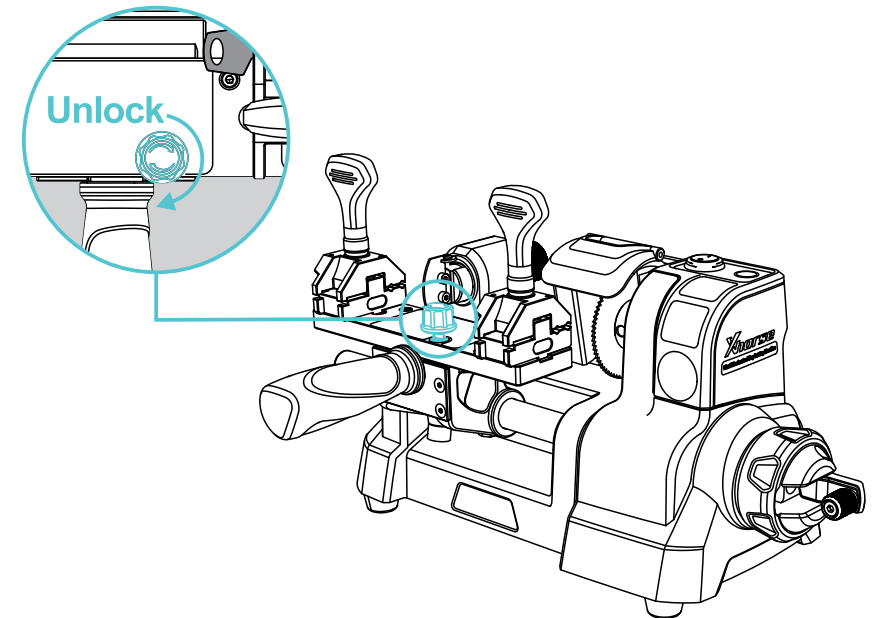


Select the appropriate clamp side according to the key type, and adjust the main and auxiliary clamps to the same side. After the key is tightened, align with the rightmost position of the clamp, then adjust the angle and position of the key to be consistent. In addition, the Cutter and guide also can be used for key positioning adjustment. If a key blank has more than one side need to cut, it is necessary to select the appropriate clamp side according to different key types and ensure the original key and the new key are aligned exactly the same before each cutting.

6.3 Key cutting method

When cutting bit and pump keys, the cutting area is larger than normal vehicle or general keys, the sliding bench moves vertically to control the speed steadily during cutting. When the key need to be cut with different depths, first move laterally to the biting position, then cut vertically to avoid damage cutter. After the key is cut, use a brush to remove the burrs to make it smoothly.

Some bit and pump keys need to adjust the angle of the clamp for cutting. Please rotate the handle back and forth during cutting to ensure all biting can be cut. If the key type no need to adjust the angle, you can tighten the lock button and directly move the rotation handle up and down to cut the key.



*Some safe deposit box key length is relatively short, and the keys cannot touch the two clamping positions at one side. In this situation, just use one side clamping position to clamp the key, ensure that the main and auxiliary clamp keys are both clamped and align at the same position, meanwhile the key need to be tighten stable.

*When using the side B to cut the key, part of keys with large cutting area, there are 2 optional tightenposition on the B side. Select the appropriate position according to the width of the key (avoid The cutting area beyond the machine table travel).

In case of chips out during cutting keys, please wear safety goggles that meet ANSI standards.

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. Warranty and after-sale description

DOLPHIN XP-008 has a warranty of 1 year for machine. 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.



Xhorse APP

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FCC statements:

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.

DOLPHIN XP-008 Video Tutorial

