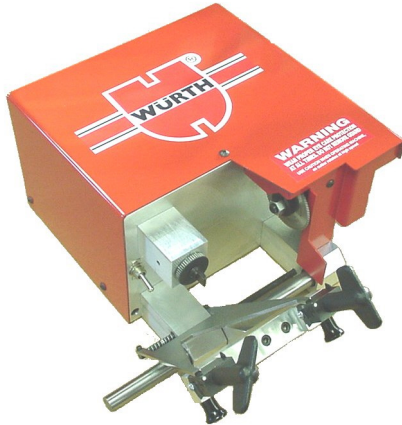


# MD-1



## Instruction Manual & Parts Book

**Framon Manufacturing Company**

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The Framon MD-1 is a manual key duplicator capable of copying automotive, residential, and padlock keys. Please read through this manual to become familiar with the machine before use.

## **BEFORE YOU BEGIN**

In addition to the machine and this manual, you should also find the following components in a small bag:

3/32" Allen wrench

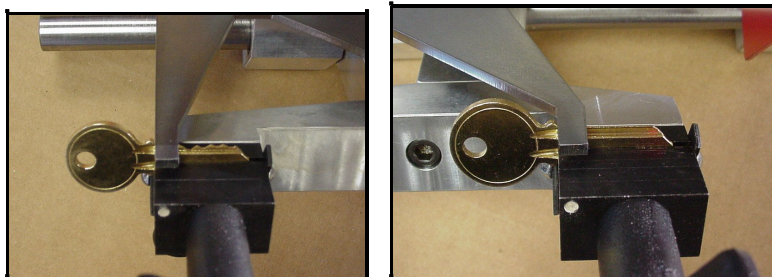
1/8" Allen wrench

5/16" Allen wrench

2 brass shims

If any of these parts are missing, contact your distributor or Framon Manufacturing Company immediately.

## **THE MD-1 KEY VISE**

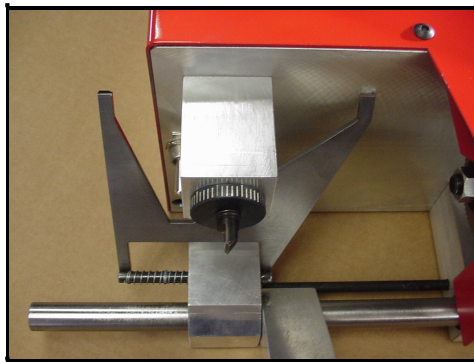


The key vise used on the MD-1 has two sides. The side of the vise with the small dot is the narrow side of the vise, used when cutting most single sided keys that have deep cuts. The wide side of the vise will hold most double sided keys without tipping. The depth of cut on either side of the vise will be within .001".

Both vises should be set to the same side when duplicating keys. To turn the vises, loosen the Vise Lock Nut (T-Nut) and lift both the top and bottom of the vise up. Both the top and bottom of the vise should be turned together. Turn the vise 180 degrees, and release pressure. You should feel the vise snap into place.

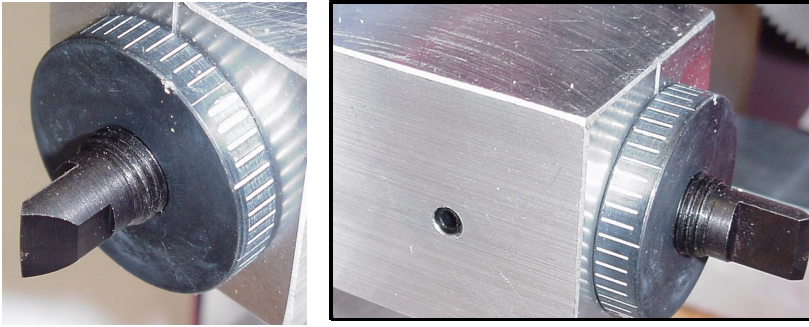
If you ever experience a key that tips in the vise, either up or down, use the supplied brass shims to hold the key properly. If the key tips up in the vise, place the shim on top of the key blank. If the key tips down, place the shim underneath the key.

The flip down key stop is used for both shoulder- and tip-aligned keys. If you are cutting a key with a shoulder, slide the carriage all the way to the left and lower the key stop. Align the shoulder of both keys against the stop. If you are cutting a tip-aligned key, move the carriage all the way to the left. Push the key stop all the way to the right and let it rest against the right side of the vises. Align the tip of the key against the stop. Be sure to move the key stop down before cutting the key!



Keys are loaded into the machine with the tip at the right and the head of the key to the left. Secure the key in the vise with the Vise Lock Nut (T-Nut); snug the key into place but do not over tighten the lock nut.

## DEPTH GUIDE AND ADJUSTMENTS



The depth guide on the MD-1 is adjustable in the event the machine ever needs calibration.

To adjust the depth of the machine, loosen the lock nut on the left side of the depth guide housing. Next, locate the setscrew recessed into the depth dial and loosen. You can now turn the dial clockwise to make the machine cut shallower, or counterclockwise to make the machine cut deeper. Graduations on the dial are one thousandth of an inch. After turning the dial, tighten the setscrew on the depth dial and put inward pressure on the guide assembly so that the dial is pressed against the housing. Tighten the setscrew on the left side of the housing.

## CUTTING KEYS ON THE MD-1

### BEFORE YOU START:

Be sure that both vises are on the same side.

Make sure you have the proper blank.

The MD-1 is designed to duplicate brass and nickel-silver keys only. The cutter does not cut steel keys.

If you are using the flip-down shoulder stop, turn it to the raised position before cutting the key.

Always wear safety glasses when cutting keys on the MD-1.

To cut a key on the machine, insert the pattern key in the left vise and tighten the vise lock nut (T-nut). Insert the blank in the right

vise in the same manner. The head of the key should be to the left and the tip to the right.

Turn on the machine and begin cutting the key from the bow (head of the key) to the tip. After you reach the tip of the key, you can make a “clean up” cut going back the other way. The cutting wheel is designed to cut the majority of the key going from left to right on the key. Give the cutter time to cut.

If you are cutting a double-sided key, turn the key over after the first side is cut and cut the second side. With material gone from the first side, it can be difficult to line up the second side accurately. If there are several deep cuts at the tip of the key, make sure the face of the vise and the millings on the key are parallel before clamping the key in the vise. Make a visual comparison to the original key to be sure the key is being held the same way.

## **CHANGING THE CUTTING WHEEL AND BRUSH**

If you ever need to change the cutting wheel, begin by unplugging the machine. You will need a 9/16” wrench. To change the cutting wheel, begin by removing the button head screw holding the cutter guard in place (the screw is to the right of the cutter). With the guard removed, insert a small Allen wrench in the hole in the spindle to prevent the spindle from rotating. Loosen the 9/16” nut at the end of the spindle and remove the nut and the washer. Remove the cutter and replace it with a FC078P. When the cutter is properly installed, you should be able to read the number on the cutter from the left side of the machine. Install the washer and replace the lock nut. Do not over tighten the nut. Reinstall the cutter guard and tighten the button head screw.

You should test cut a key and check the depth of the cut with a micrometer or dial calipers.

If you need to change the deburring brush, remove the cutter guard and use the 5/16” Allen wrench to loosen the screw. The screw has a left hand thread. With the screw removed, the brush and two washers will come off of the machine. When re-installing the

brush, put one washer on each side of the brush and tighten the screw. Replace the cutter guard.

## **WARRANTY INFORMATION**

The MD-1 carries a one-year, parts, labor and freight warranty. Any machine found to be defective within one year from date of purchase will be picked up by UPS, repaired or replaced, and returned free of charge. Cutters are not covered by the warranty, as we have no control of their use.

If you have any questions, feel free to contact us at:

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