

# Basic Key Machine Care & Maintenance Tips

**CAUTION:** Never operate a key machine for purposes other than that for which it is intended for. Use for other purposes can be dangerous to the operator and others, and can also damage the machine.

## Cleaning

**NEVER** allow metal chips to accumulate on a key machine. Simple cleaning will prevent a build up that could be harmful to the electrical components, or otherwise adversely affect machine accuracy and service life.

**DO NOT** use compressed air for clearing away metal chips. Compressed air circulates the chips at high velocity. This could potentially force the chips into areas of the machine that would create an electrical short circuit, or cause other problems. Use a shop vacuum or a 1" (25.4 mm) paint brush to clear chips. Periodically remove the hood to clear dust and metal chips.

The most critical areas requiring frequent cleaning are the jaws and carriage shaft.

Keep a small paintbrush near the machine to brush dust particles and chips from the vise jaws. Debris may cause the keys to rest unevenly in the vise jaw, which greatly impacts cut accuracy. The key and key blank should lie flat across the entire width of the vise jaw when clamped.

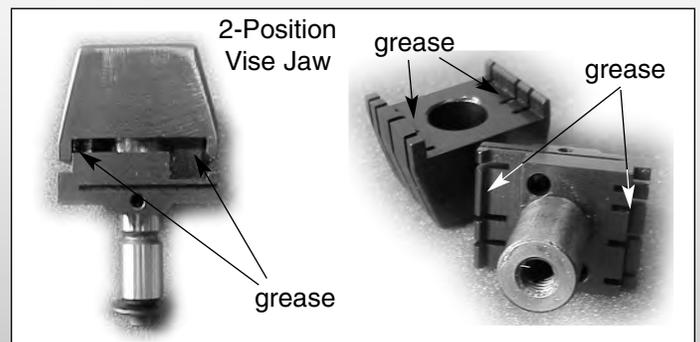
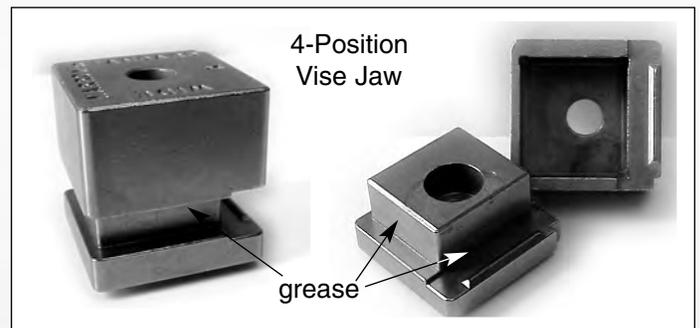
To remove accumulated chip debris from the carriage shaft, periodically wipe with a lightly oiled cloth.

## Lubrication

Lubrication of moving parts is an important part of regular machine maintenance. It is recommended that the lubrication procedures be performed every 2-3 weeks depending on usage.

**NOTE:** The motor may only require lubrication annually. Please refer to your motor label for details.

- Apply a very slight amount of multi-purpose grease to the inside surface of the top vise jaw.
- A thin film of lightweight spindle oil can be applied to the carriage shaft to assure that it moves smoothly. A better solution is to apply a "dry film" lubricant that can be sprayed onto the shaft surface, but quickly evaporates, leaving a dry film of lubricant behind.
- An occasional small amount of multi-purpose grease, applied to the wing nut threads will provide lubrication and extend the service life of the part.
- Lubricate the cutter shaft bearings using 5-7 drops of a 3-in-1 or other lightweight spindle oil in the oil cup of the machine. **DO NOT OVERFILL.**



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## Cutters

A sharp cutter can help to reduce mis-cuts and provide “more precise” cuts on the duplicate keys.

A cutter is a precision cutting tool, and should be handled with care. It should not make contact with foreign objects or tools, which could immediately “blunt” it. Do not allow the cutter to cut into the vise jaw; this will quickly dull the cutter, and reduce its useful service life. Cutters are not warranted against breakage or abuse.

### Signs of a dull cutter:

**Effort-** A dull cutter takes more effort to make the cuts (manual type machines) or requires multiple passes (semi-automatic and automatic machines).

**Sound-** A dull cutter typically emits a shrill sound as it cuts a key.

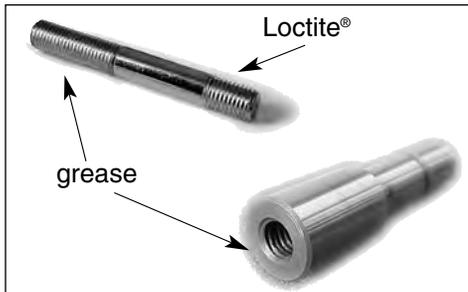
**Burrs -** A dull cutter often leaves a heavy build up of burrs on a key, requiring greater effort to remove with the machine’s de-burring brush.

## Parts

Do Not use a metal hammer for installing parts. If necessary, use a rubber mallet. This will prevent burring the metal parts. Burrs can create a “bind” in the working mechanism of the machine, resulting in damage or the malfunction of other parts.

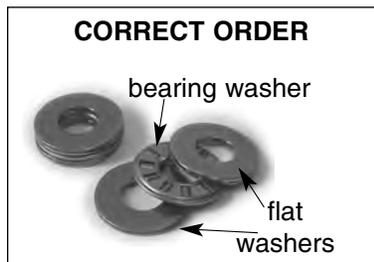
**Carriage Studs** – Always use blue removable Loctite® when installing vise jaw studs. This is applied to the lower threads on the vise jaw studs.

To install, use the appropriate stud wrench or grip pliers. When using grip pliers, clamp onto the middle section of the stud (un-threaded



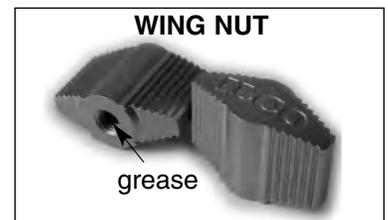
area) to prevent damage to threads. Thread the stud into the carriage casting until it lightly seats, then use the grip pliers to thread them 1/4th of a turn further. For extended life, apply a small amount of multi-purpose grease to the upper thread portion of studs.

**Bearing Washer-** CAUTION: Do not reverse the order of the thrust bearing washer set. Any other arrangement could over time damage the wingnut, vise jaw stud, or carriage casting. Sandwich the bearing washer between the two flat washers, positioning them between the wing nut and top of the vise jaw assembly. Missing, or improperly placed thrust bearings, will impact how well the vise jaw effectively grips keys.



**Belts-** Periodically check belt tension. Proper tension reduces wear on the belts, cutter shaft, bearings, and motor pulleys. Tension should allow for approximately 1/2” (12.7mm) of deflection. This is 1/4” (6.35 mm ) up and 1/4 ” (6.35 mm) down at the midpoint between the two pulleys.

**Wing Nut/Clamping Lever - CAUTION:** Never use pliers or other tools to tighten the wing nuts. This will ultimately damage the wing nuts, vise jaw stud, and/or carriage casting. Use caution not to over tighten; let the wing nut do the work. Simply use enough hand pressure to clamp the key firmly. If you feel you need to “over tighten” the wing nut in order to secure



keys in the vise jaw, check to assure that the thrust bearings are properly positioned, as described above.



Applying a small amount of multi-purpose grease to the wing nut threads to will provide for longer service life.

**Carriage Shaft** –Keep the shaft free of metal particles and chips. Maintain free movement of the shaft by lubricating it with a thin film of lightweight spindle oil.

The Owner’s/Operator’s Manual specific to your Ilco machine model will provide additional tips and information on the care of your machine. If you have lost your manual, you may download a copy for free at [www.kaba-ilco.com/key\\_systems](http://www.kaba-ilco.com/key_systems) . Manuals are found on the literature and support page, key machines. For the cost of S & H, you may obtain a printed copy of a manual. Contact Kaba Ilco Customer Service at 1-800-334-1381.