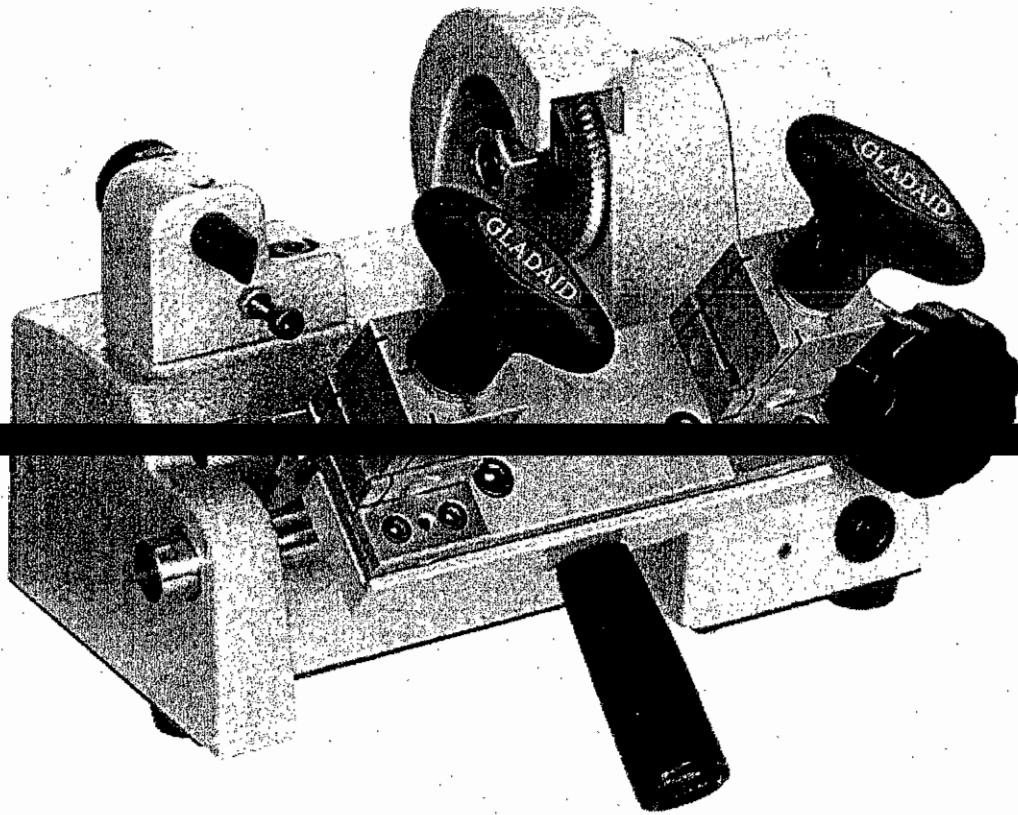




GL - 320

鎖匙複製機

KEY MACHINE



INSTRUCTION MANUAL

使用說明書

GLADAI ENTERPRISE CO., LTD.

www.gladai.com

索引 Index

前言 Introduction	2
標準附件 Unpacking	3
認識您的機器 Get To Know Your Machine	4
安全指示 Safety Instructions	5
安全第一 Safety First	5
機器特徵 Features	
準具 Guide	6
保護刀具安全調整螺絲 Cutter Security Screw	6
夾具平行導正塊 Aligning Blocks Of Jaws	7
鎖匙止擋校正片 Key Gauge	7
校正準具之方法 Calibrating The Cutter And Guide	8-9
校正鎖匙止擋校正片之方法 Adjusting The Key Gauge	10
更換刀具之方法 Cutter Removal And Replacement	11-13
皮帶之更換方法 Replacing The Drive Belt	14-15
保養機器之方法 Oiling Your Machine	16
電路解說圖 Wiring Diagram	16
零件分解圖 Branch Of Machine	17

© Gladaid Enterprise Co., Ltd. 2010

前言 Introduction

安全工業日新月異。在未來，擁有合適的工作設備將漸漸受到重視。因此購買一部好的機器，即是做了最好的投資選擇。

敝司的機械工程師一直致力於從事研究改良機器功能。現在我們很高興向您推薦我們的系列產品，如：GL-368 系列，GL-888 系列，GL-203 系列，對號碼系列，生產用製匙機系列。它們具有操作方式簡單，功能完善，精確度高，節省時間等特性。

爲了延長您的機器壽命，請詳閱本使用說明書，它將告訴您正確的校正方法、複製方法、車刀準具更換方法、安全守則及保養方法。

您的機器同時可獲得多年免費的技術指導。對於您所提出的建議和問題，我方將感激不盡，假如您有任何寶貴意見，請就近與經銷商聯絡反應。

The security industry is changing daily. In the future it will be increasingly necessary to have reliable and low maintenance equipment. Be satisfied knowing that you have made the right investment decision by purchasing the GL-320.

To stay at the head of the international market, our engineers are always making special efforts to improve our key duplicator machines. We are pleased to present an entire line of high quality machines. They are not only easy to operate but versatile, precise and time saving.

In order to protect yourself from injury and to properly maintain our investment,

Read this manual carefully and thoroughly before attempting to operate your key duplicating machine.

This manual provides necessary safety information, maintenance and other operating instruction that will enable you to know your machine and operate it safely.

Your machine is a precision instrument crafted to provide many years of trouble free service. We encourage and greatly appreciate any and all questions or suggestions that you may have. If you have a comment, please notify your retailer or distributor. Thank you.

Buy from www.drlock.com.au/store

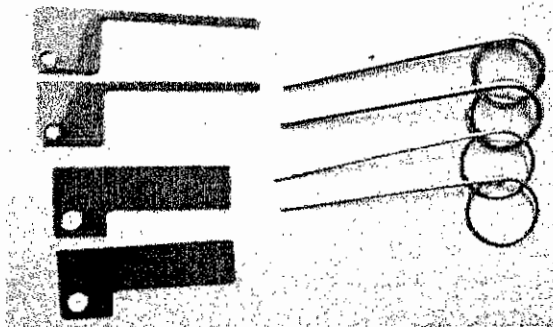
標準附件 Unpacking

我們隨機提供的標準附件如下：

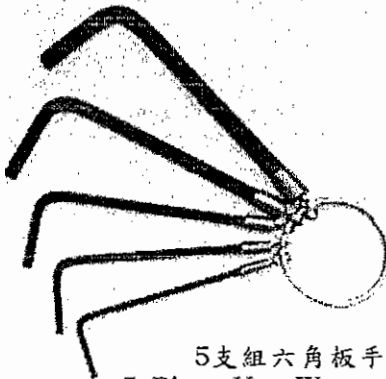
Included with your new machine are all the necessary items to begin cutting:

1. 1 片刀片 (已安裝在機器上且已校正完成)。
One cutter (already installed and factory calibrated)
2. 1 條電源線。
One 3-pronged electrical cord for proper grounding (special order machines are also available in 220V AC and 12V DC)
3. 兩片止擋片 & 4 支止擋鋼線。
Two stoppers & Two Steel Wire Stopper.

我們同時亦隨機提供一套 5 支組六角板手(可幫助您做調整和裝配機器的工作)。
Also supplied with your unit is a 5-piece hex wrench set (to help you do minor adjustments or assembly to your unit) .



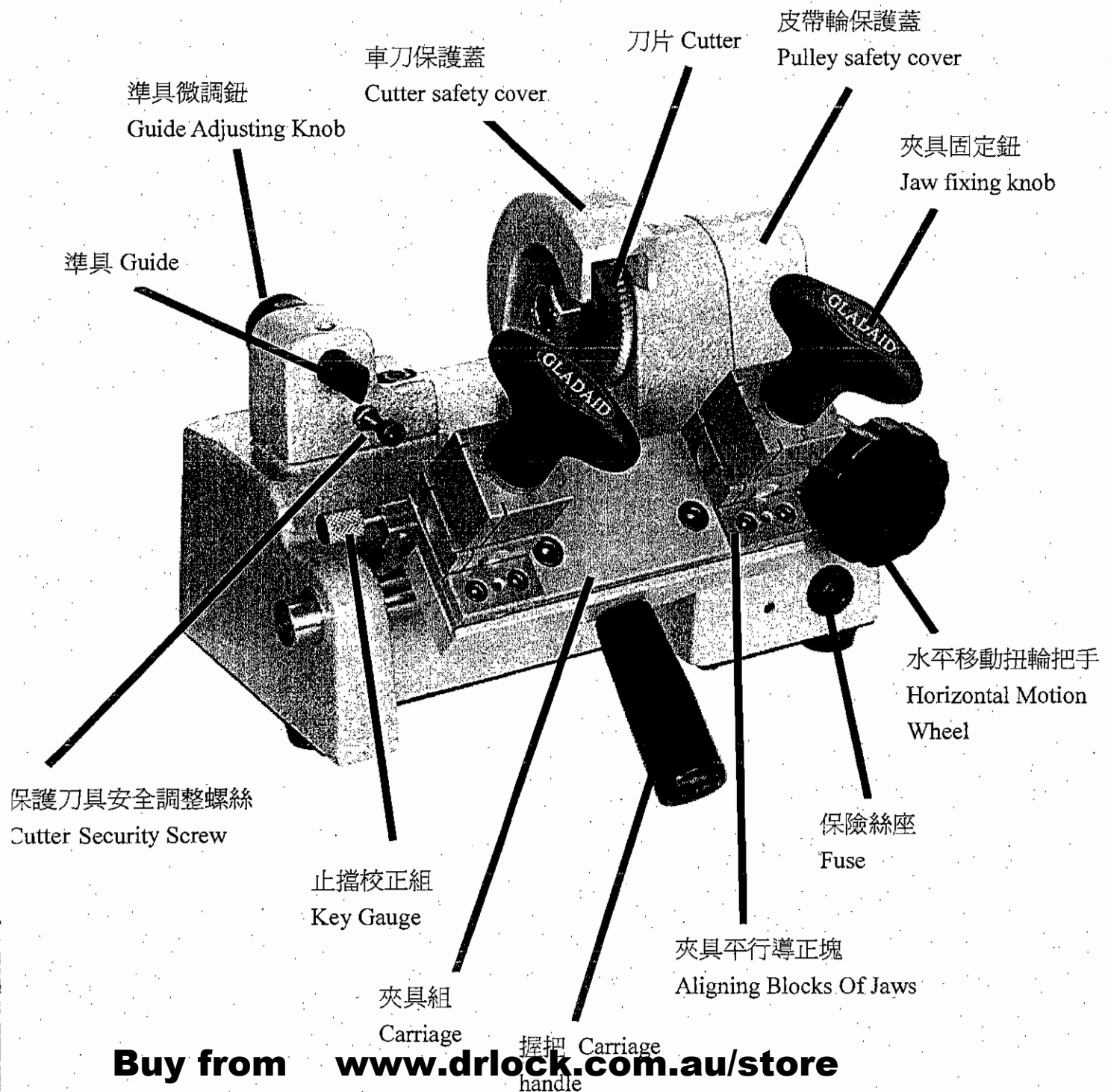
刀片
Cutter



5支組六角板手
5-Piece Hex Wrench

Buy from www.drlock.com.au/store

認識您的機器 Get To Know Your Machine



Buy from www.drlock.com.au/store

安全指示 Safety Instructions

您個人有責任確定您的複製機器.....

You are personally responsible for making sure that your key duplicating machine....

1. 是被適當地平放。 Is properly leveled.
2. 是被放置在堅固的工作台上。 Is placed on a sturdy table or stand.
3. 是被放置在適當的高度，使操作者能看到整個工作區域並且能拿到任何所須工具。 Is high enough to comfortably see the complete working area and where all the levers can be easily reached.
4. 是接在適當且正確的電源插座上。 Is connected to the proper voltage outlet.
5. 是不會被小孩或任何不熟悉此機器的人操作。

Is never operated by children or anyone who is not familiar with its proper use.

6. 使用過一段長時間後，拔掉電源。

Is disconnected from its power when used for an extended period of time.

安全 第一 SAFETY FIRST

絕不 於操作機器時穿寬鬆衣物。

Never wear loose clothing while operating your machine.

絕不 於機器運轉時將手放於夾具附近。

Never put your fingers on or around the vise carriages when the machine is running.

隨時 小心注意機器運轉與否。

Always be cautious whether the machine is running or not.

隨時 穿戴護眼罩。

Always wear proper eye protection.

隨時 保持您的機器潤滑，並且所有滑動部分情況良好。

Always keep your machine well lubricated and all sliding parts well maintained.

隨時 保持您的機器清潔。

Always keep your machine neat and clean.

隨時 於使用機器前先確定刀具與準具已調整好了。

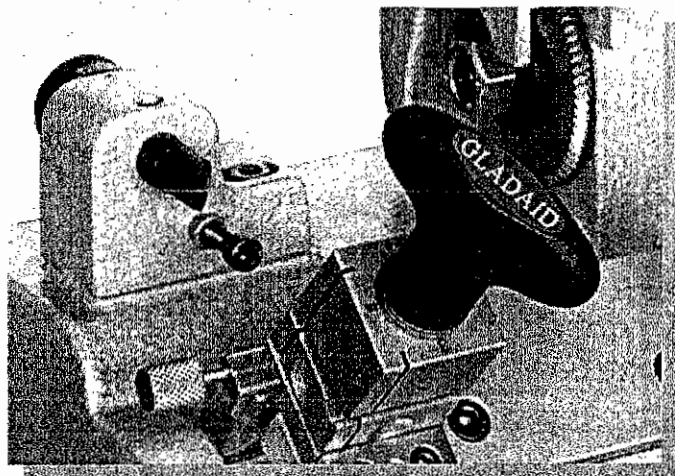
Always make sure the cutter and guide are properly calibrated before using this machine.

【請參閱準具與刀具深度調整 see sections titled calibrating the cutter and guide of this manual】

Buy from www.drlock.com.au/store

準具 GUIDE ADJUSTING DIAL

假如原鎖匙因使用頻繁形成磨損現象時，您的準具依然可校正至正確的深度，使您複製出精確的鎖匙。 If the original key is too worn, your Guide can be easily adjusted to make more accurate duplicates



校正準具，首先用 3mm 六角板手將固定準具軸心螺絲鬆開。然後以逆時鐘方向旋轉刻度盤，使左邊準具軸心往後縮進（準具變短），即是複製齒深較深的鎖匙。反之，欲複製齒深較淺的鎖匙以順時鐘方向旋轉刻度盤即可。

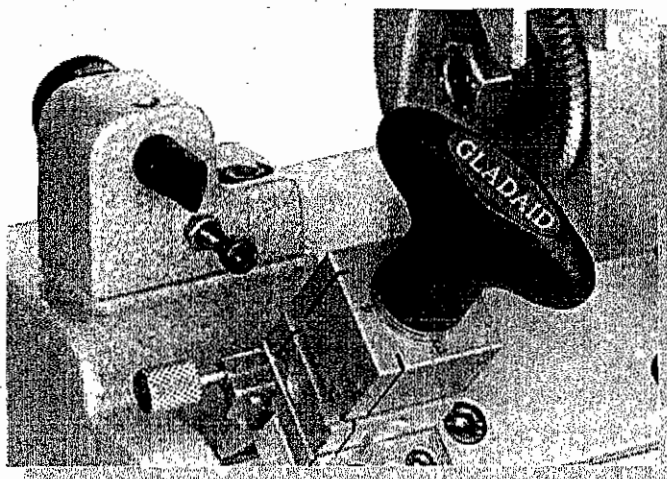
To use the Guide Adjusting Dial, first loosen the Holding Screw

with a 3mm hex wrench. Turn the Dial counter-clockwise move into the housing (the blank key will have deeper cuts). Turn the Dial clockwise and the duplicate key will have shallower cuts. Each degree on the Dial equals 0.02mm movement in the Guide.

保護刀具安全調整螺絲 Cutter Security Screw

保護刀具安全調整螺絲可防止刀具切削到夾具，避免夾具的損害，延長其壽命。

Cutter Security Screw can protect jaws from cutting by the cutter & lengthen the jaws' lifetimes.

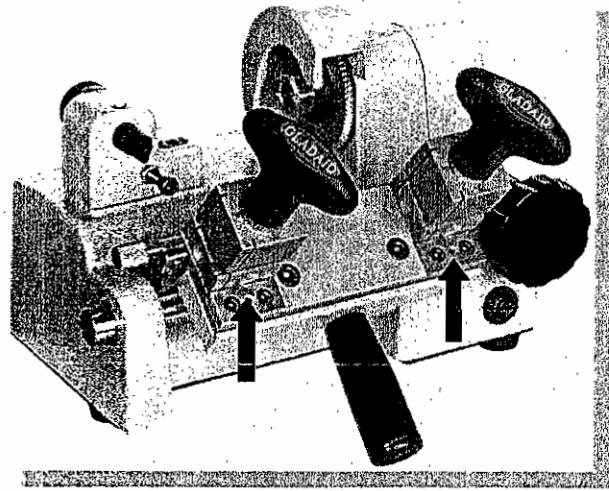


Buy from www.drlock.com.au/store

夾具平行導正塊 Aligning Blocks Of Jaws

夾具平行導正塊可幫助導正夾具，
使之與刀具及準具保持平行。

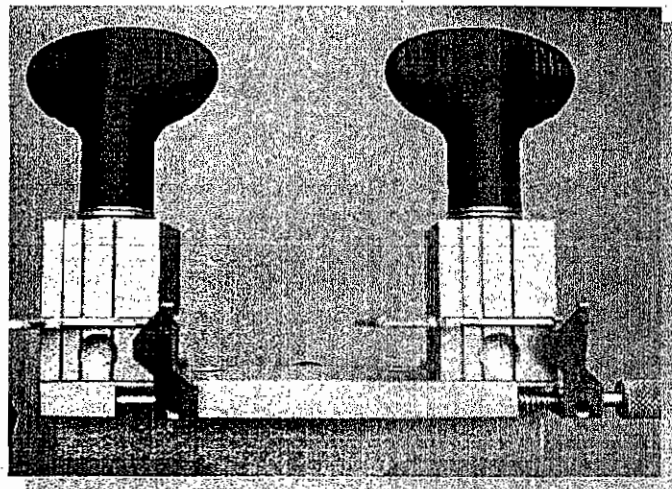
Aligning Blocks of Jaws can make
jaws to parallel the cutter & guide



鎖匙止擋校正片 Key Gauge

在夾具組後面有一組鎖匙止擋校正片，可以使有鎖肩的鎖匙能正確無誤地置放在夾具上。

The key gauge enables you to quickly place shouldered keys into uniform position. It is located at the rear side of the carriage and comes completely calibrated from the factory. The key gauge is designed to flip in and out of position quickly and easily.



Buy from www.drlock.com.au/store

校正準具之方法 Calibrating The Cutter And Guide

1. 換掉身上寬鬆衣服，戴上護眼裝置。

Replace loose clothing while operating your machine.

2. 確認機器是接在正確的電源插頭。

Make sure the machine is connected with proper plug.

3. 取三支完全空白的鎖胚，分別在此三支鎖胚上標明 A、B、C 作為確認的記號。

You will need three identical blank keys. We recommend that you label them as we have (A, B, and C) with a marking pen.

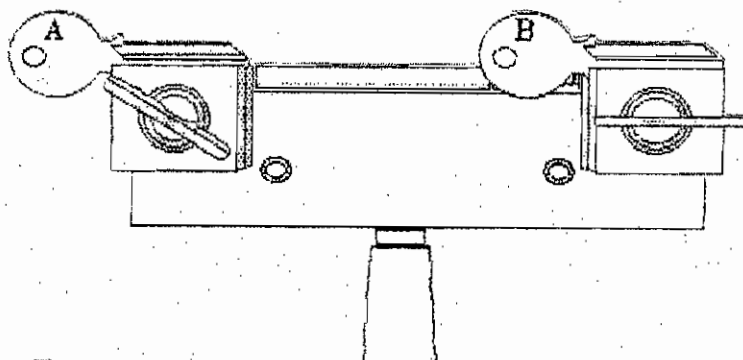
4. 將 A 鎖胚夾於準具對面之夾具，B 鎖胚夾於刀具對面之夾具，確認鎖胚已置於正確位置上。

Place key a into the vise jaws opposite the guide, and place key b in the vise jaws opposite the cutter. Make sure the keys are seated properly.

將夾具組往前推，假使刀具無法接觸到鎖胚，則請依照下列方式調整準具深度：首先用 3mm 六角板手鬆開準具軸心固定螺絲，以逆時鐘方向轉動微調刻度鈕，使刀具足夠接觸到 B 鎖胚表面，接著鎖緊準具軸心固定螺絲。

Push the vise carriage

to make it to be closer to cutter. If the cutter can't touch the key blanks, please adjust the tracer as following steps: Use 3mm hexagon wrench to loose the tracer fixing



screw, turn the tracer micro-adjusting screw by counterclockwise until cutter may touch the surface of blank B, then tighten the trader fixing

5. 啟動馬達開關，然後沿著 B 鎖胚的表面切削，只切到 0.1mm—0.2mm 深即可（約 1/64 英吋）。關掉馬達開關。

Turn ON the motor and make a passing cut along key B. trim the entire length of the key. Turn OFF the motor.

6. 取下 B 鎖胚，將 C 鎖胚夾上，確認鎖胚已置於正確位置上。

Remove key b and replace it with key c. Make sure the key is seated properly in the vise.

7. 啟動馬達開關，再一次沿著 C 鎖胚的表面切削，只切到 0.1mm—0.2mm 深即可（約 1/64 英吋）。關掉馬達開關，不要將 C 鎖胚取下。現在您已經有兩支完全相同的鎖胚。（B 與 C）

Buy from www.drlock.com.au/store

Turn on the motor and make a passing cut along key c. turn off the motor. Do not remove key c. now you should have two identical blank keys(b and c).

8. 將 A 鎖胚取下，換上 B 鎖胚，並確認鎖胚已放置在正確的夾具位置。
Remove key A key and replace it with key B. make sure the key is seated in the vise properly.
9. 檢查刀具和準具是否已經校正完畢。當準具有接觸到 B 鎖胚且刀具也微微接觸到 C 鎖胚的表面，即是刀具與準具已校正好了。假如刀具沒有微微接觸到鎖胚的表面，就必須繼續第 11 個步驟。反之如果您的機器已經完全校正好了，請繼續第 17 個步驟。

Check to see if the guide and the cutter are calibrated. The guide and cutter are properly calibrated when the guide is making contact with key B and the cutter is barely scraping the surface of the C. if the cutter is not barely scraping the surface of the key, proceed to step 11.

If your machine is correctly calibrated, proceed to step 17.

11.

注意：為了使刀具與準具的校正達到精確及排除任何可能發生的錯誤，當您在做校正工作的時候，馬達必須是啟動的。

Note: in order to insure proper adjustment of the cutting depth and to eliminate any error, the motor must be running while making this adjustment.

啟動馬達開關，將 B 鎖胚與 C 鎖胚仍繼續固定在夾具上，利用 3mm 六角板手轉鬆準具軸心固定螺絲。

Turn ON the motor. Keep key B & key C still in the jaws, use 3 mm hexagon wrench to loose tracer fixing screw.

12. 轉動準具微調螺絲，直到刀具微微切到鎖胚表面。

Turn the tracer micro-adjusting screw by clockwise to make the tracer withdraw back to be shorter until the cutter micro scrape the surface of key blank.

13. 當準具微微接觸到 B 鎖胚，且刀具僅微微切到 C 鎖胚表面一點點，即表示刀具已經完全校正好了。

The cutter has been properly adjusted when the guide is making contact with key B and the cutter is barely scraping the plane surface of key C.

14. 關掉馬達開關。取下 B、C 鎖胚。

Turn OFF the motor. Remove the keys.

15. 鎖緊準具軸心固定螺絲。

Tighten the holding screw securely.

16. 再一次確認刀具、準具已校正好，且準具軸心固定螺絲也確實鎖緊。

Buy from www.drlook.com.au/store Once you check the holding screw has been well tightened.

校正鎖匙止擋校正片之方法

Adjusting The Key Gauge

鎖匙止擋片在出貨之前已由工廠技術人員校正好了。但是如果您有特別的需要，而必須重新校正鎖匙止擋片，請依下列步驟校正：

the key gauge comes factory calibrated, but if for any reason you need to reset the position of the key gauge here is how you do it:

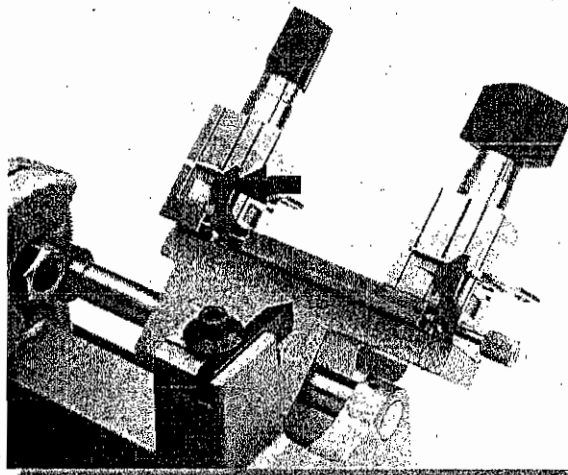
1. 準備兩支完全空白的鎖胚，此二支鎖胚必須是有鎖肩的。

Prepare 2 identical blank keys. To make this adjustment correctly and easier, these two blank shoulders on both sides of the key.

2. 分別將兩支鎖胚固定在夾具組夾具上。確認鎖胚的邊緣已完全齊平緊靠在夾具內側，鎖肩緊貼夾具的角隅。

Secure the keys in the vise of the carriage. Make sure to keep the edge of the key pressed flush against the inside of the vise and the shoulder butted against the inside corner.

3. 檢查兩支鎖胚是否已適當地夾在夾具上。以 2MM 六角板手將任意一邊的鎖



匙止擋片的固定螺絲鬆開，（請勿取下螺絲），此時鎖匙止擋片的翼片即可左右自由移動。

Checking & make sure the keys are proper seated in the jaws. Use 2 mm hexagon wrench to just loose any one of key gauges (please don't take screw off), then you will see the gauge can be moved leftward & rightward freely.

4. 將翼片移動至緊靠鎖肩。察視兩邊的止擋片是否都齊平抵住兩邊夾具上的鎖匙之鎖肩。

Swing the key gauge into position so that both end sections rest on the shoulders of both keys.

5. 當止擋片校正完畢之後，即可鎖緊固定螺絲。

After the key gauges are calibrated well, tighten the fixing screws of them.

更換刀具之方法 Cutter Removal And Replacement

1. 爲了避免不必要的傷害，請確認您的機器已拔掉電源插頭。

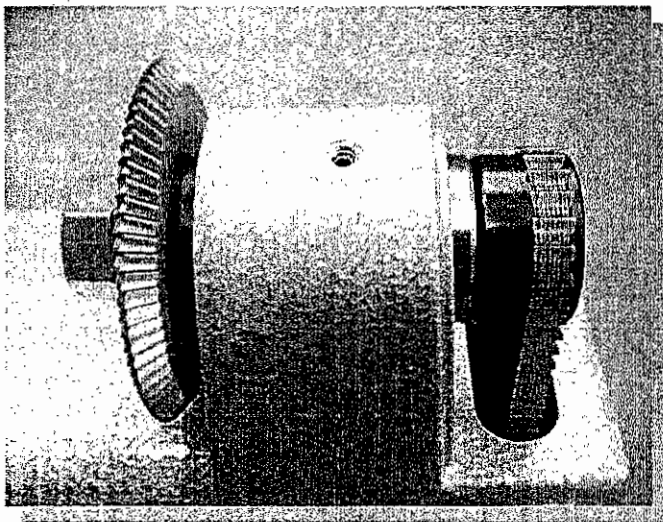
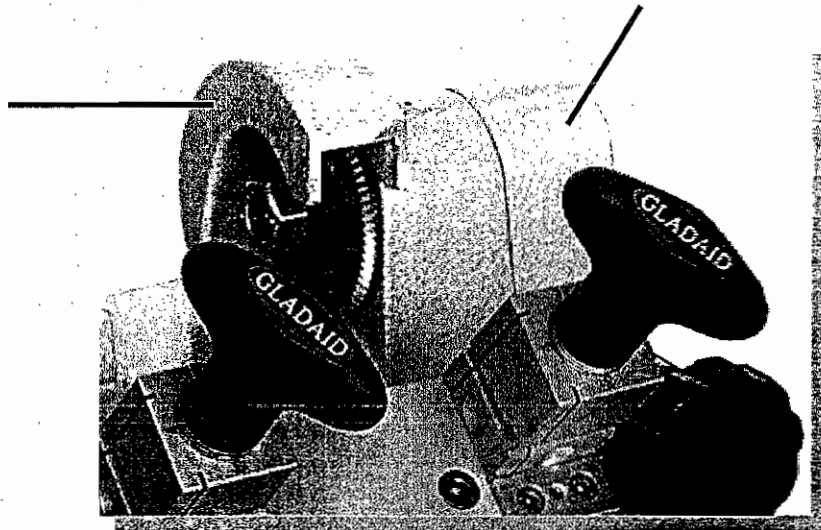
To avoid possible injury, make sure the machine is disconnected from its power supply.

2. 將車刀保護蓋及皮帶輪保護蓋卸下。

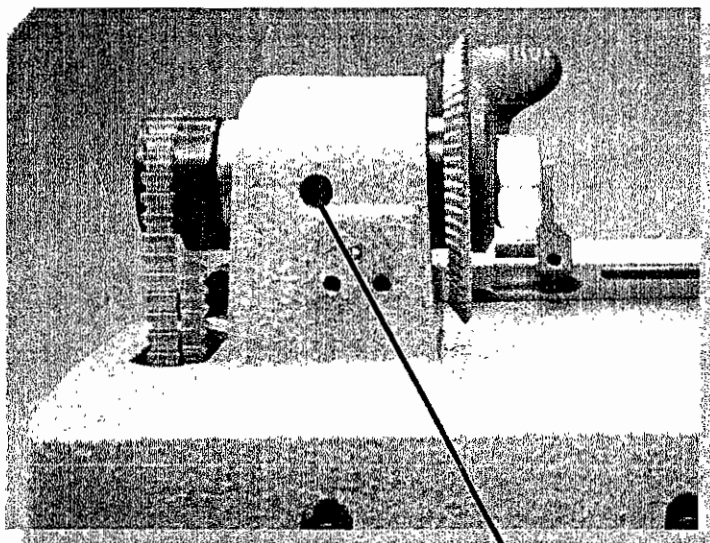
Take off the cutter safety cover & pulley safety cover.

車刀保護蓋
Cutter safety cover

皮帶輪保護蓋 Pulley safety cover



Buy from www.drlock.com.au/store



擋軸孔 casing hole

3. 用一支十字螺絲起子，或其他相類似的物體，插入車刀主軸座的擋軸孔。
擋軸孔位於車刀主軸座的後方

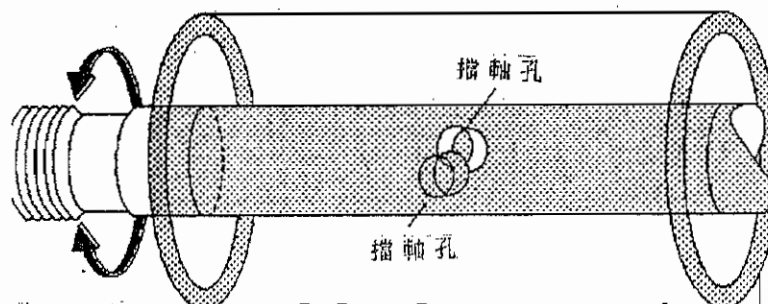
Stop the movement of the spindle by inserting a Philips style screwdriver or other similar strong object into the Casing Hole.

註：使用十字螺絲起子的目的在於固定主軸心的孔與擋軸孔成一直線。

The screwdriver MUST be inserted into both holes. This step will hold the spindle shaft in place when loosening the spindle nut

4. 藉著轉動主軸心，使擋軸孔與車刀主軸心的孔成一直線。此時，將螺絲起子同時插進這兩個孔，即可將車刀主軸心煞住不再轉動（圖）。

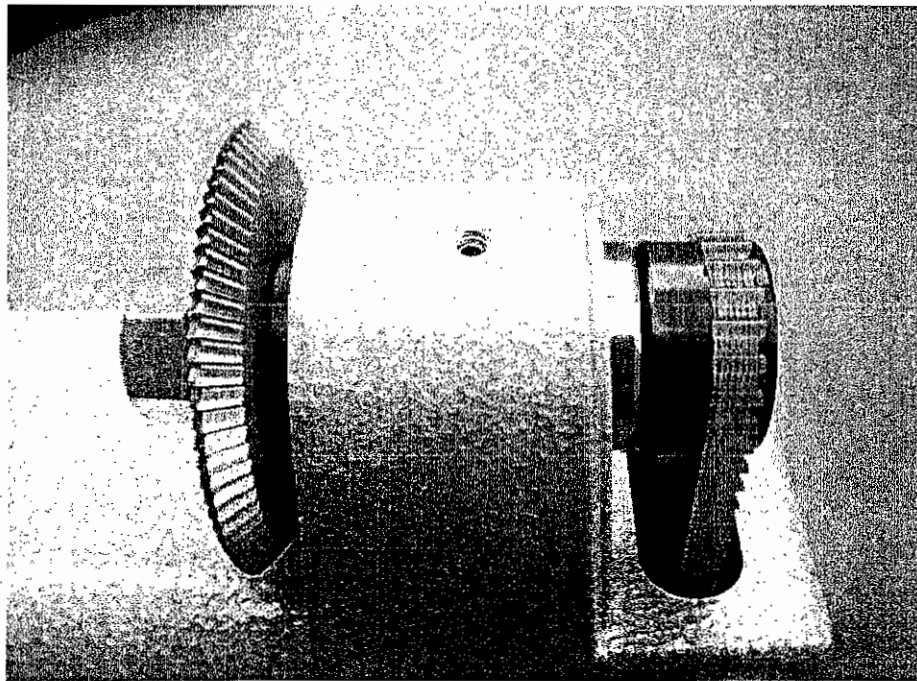
Use the screwdriver as a probe to locate the Spindle Hole. Align the Casing Hole and the Spindle Hole by turning the spindle shaft in either direction (you may also turn the spindle shaft by rotating the Belt by hand).



注意：車刀的螺絲帽其旋轉方向與一般的螺絲帽相反。

Note: The direction of screw nut of cutter is different to normal screw nut.

5. 用順時鐘方向旋轉鬆開螺絲帽。取下車刀軸心的螺絲帽、華司、舊車刀。
Loosen the Hex Screw with a 5mm Hex Wrench by rotating it counter-clockwise.
Remove the Hex Screw, Spacer and the worn Cutter



6. 裝上一片新刀具，務必確認新刀具已經適當地放在車刀主軸心上。且車刀齒尖點朝下。

Replace a new cutter. Please make sure that the cutter has been properly put on the axle & the top of teeth of cutter point at down position.

7. 重新裝回華司及和螺絲帽於原來位置。

Replace back the spacer & cutter screw nut to their previous position.

8. 以逆時鐘方向將螺絲帽鎖緊。

Turn to tight them by turning counterclockwise.

9. 將車刀安全蓋及皮帶輪保護蓋放回原來位置，鎖緊固定螺絲即可。

Replace back the cutter safety cover & pulley safety cover & tight the fixing

Buy from www.drlock.com.au/store

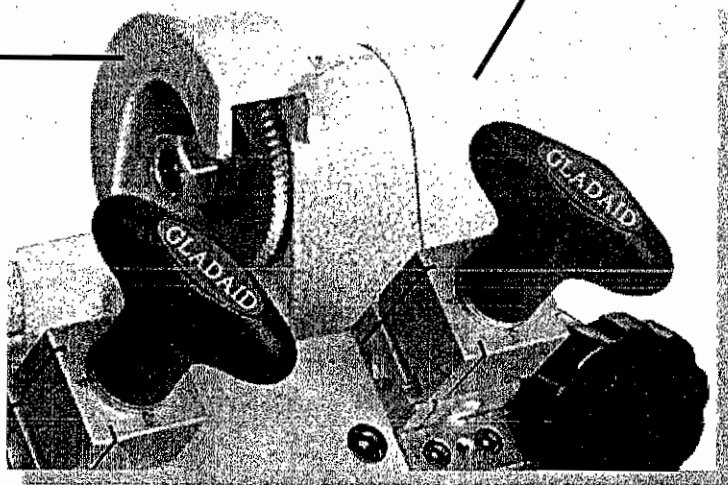
皮帶之更換方法 Replacing The Drive Belt

1. 爲了避免無謂的傷害，請預先確認您的機器已拔掉電源插頭。
To avoid possible injury, make sure the machine is disconnected from its power supply.
2. 拆卸下車刀保護蓋及皮帶輪保護蓋
Take off the cutter safety cover & pulley safety cover.

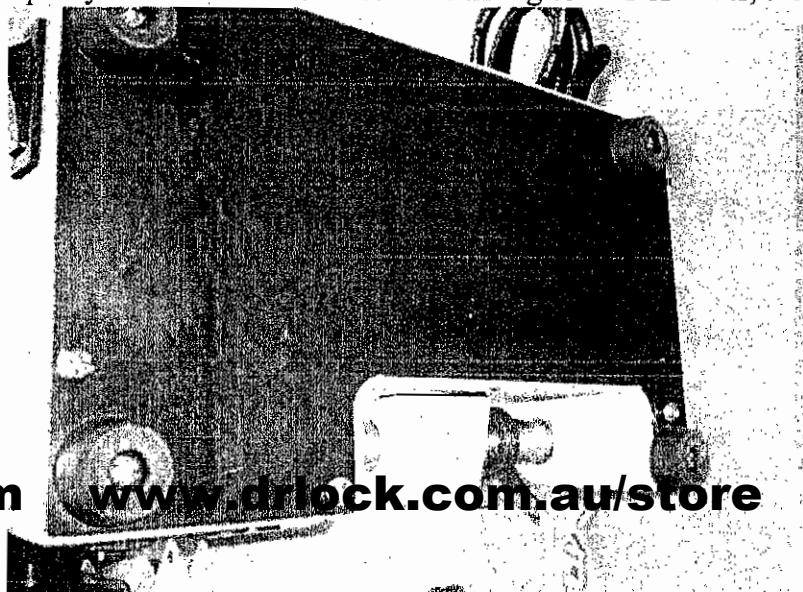
車刀保護蓋

Cutter safety cover

皮帶輪保護蓋 Pulley safety cover



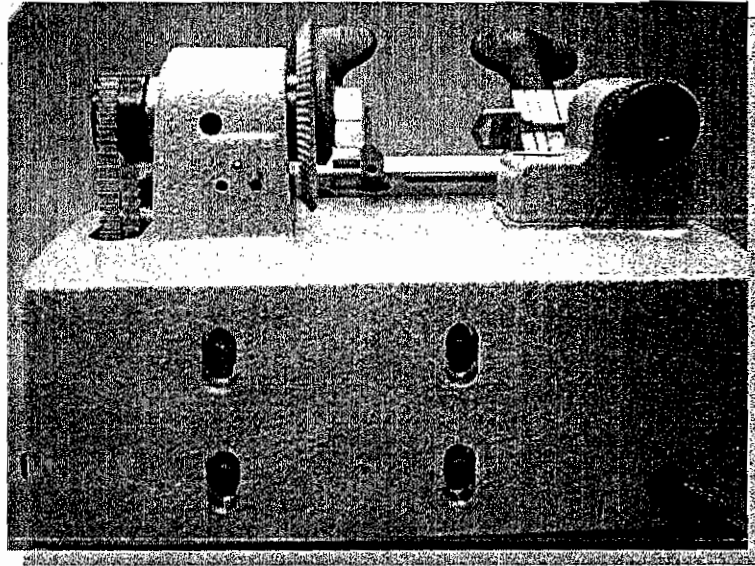
3. 利用十字螺絲起子將機台底部底板 5 顆螺絲卸下，取下底板。
Use Philips style screw driver to loose five fixing screws of cover, then take it off.



Buy from www.drlock.com.au/store

4. 利用 4mm 六角板手把機座側邊的 4 顆馬達固定螺絲卸下後,可把整個馬達由機座取出

Use 4 mm Hexagon wrench to Loosen the 4 bolts located below the Motor on the Base Plate then take it off.



5. 取下舊的皮帶, 裝上新的皮帶。確認皮帶是否已正確地放在主軸皮帶輪及馬達皮帶輪上。

Take the worn out belt & replace new one. Please make sure the belt is on its proper position of pulley.

6. 藉著滑動馬達與馬達固定板推離刀具, 來確定適當的皮帶鬆緊度。通過皮帶應當具有約 3/4 英吋的鬆份。

Pull or Push the motor away from cutter & make the belt to be in proper tension.

7. 鎖緊 4 顆固定馬達固定板的螺絲釘。

Tighten 4 motor fixing screws.

8. 將馬達底板、皮帶輪保護蓋及車刀保護蓋放回原位置並鎖緊所有的固定螺絲。

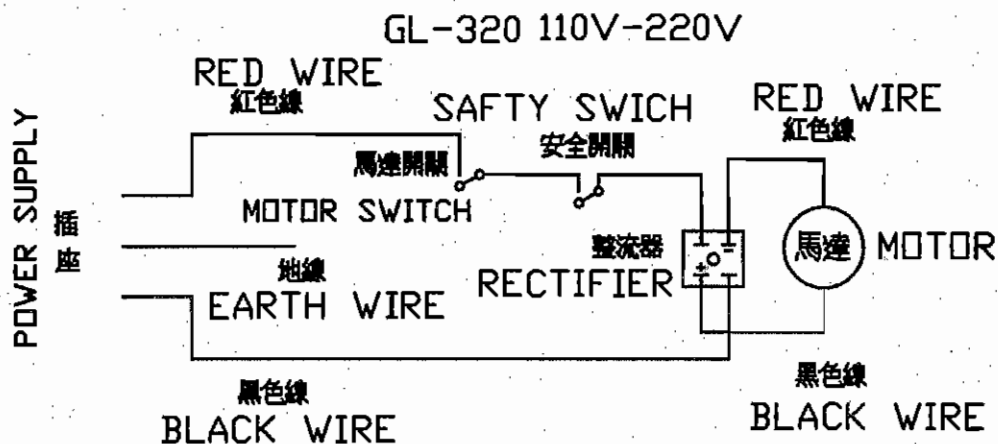
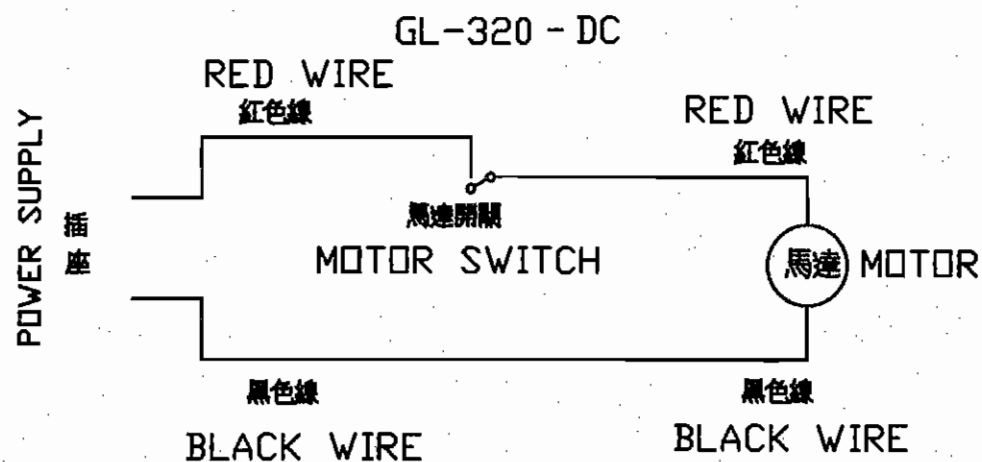
Put back & fix the screw nut & fix the pulley safety cover & fix the cutter safety cover on its position.

保養機器之方法 Oiling Your Machine

爲了延長機器的壽命及避免機器生鏽，請務必時常使用防鏽潤滑油擦拭機器的表面、夾具座、夾具座螺絲，各軸心管道滑動部份。在工作完畢必須徹底清除切削後殘留的銅屑保持清潔。

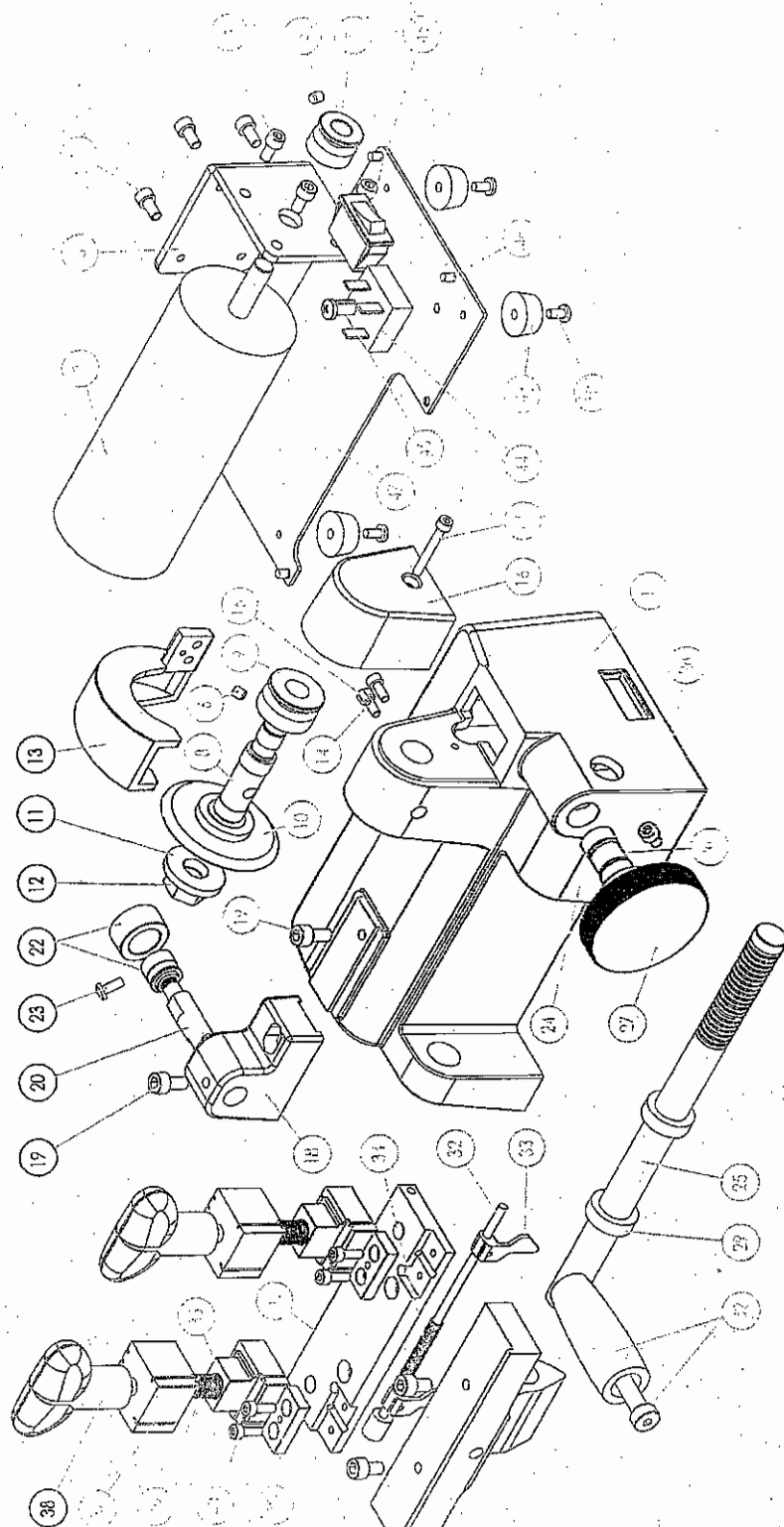
In order to protect your machine from corrosion we recommend that you regularly spray and Wipe-down the surface and all moving parts of your machine with a light machine oil.

電路解說圖 Wiring Diagram



Buy from www.drlock.com.au/store

GL-320 零件分解圖 Branch of Machine



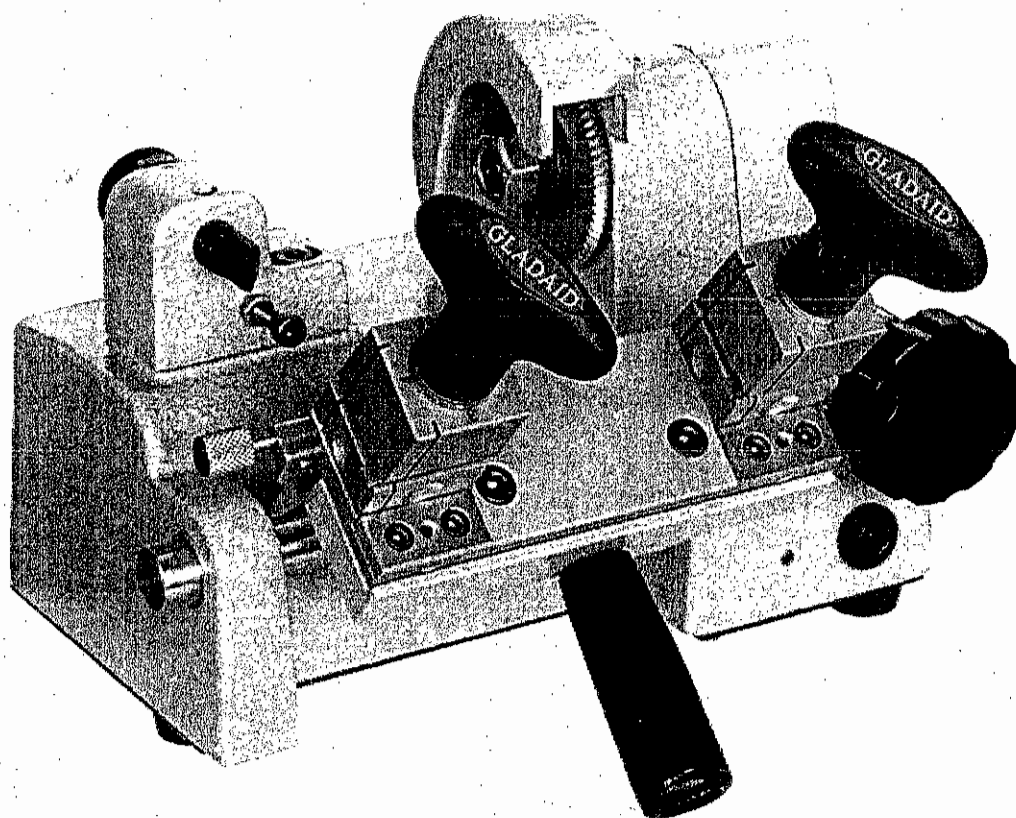
Buy from www.drlock.com.au/store



G L - 3 2 0

鎖匙複製機

KEY MACHINE



INSTRUCTION MANUAL

使用說明書

GLADAID ENTERPRISE CO., LTD.

100-1000, TAIPEI, TAIWAN, R.O.C.

TEL: (02) 2312-1111
FAX: (02) 2312-1112