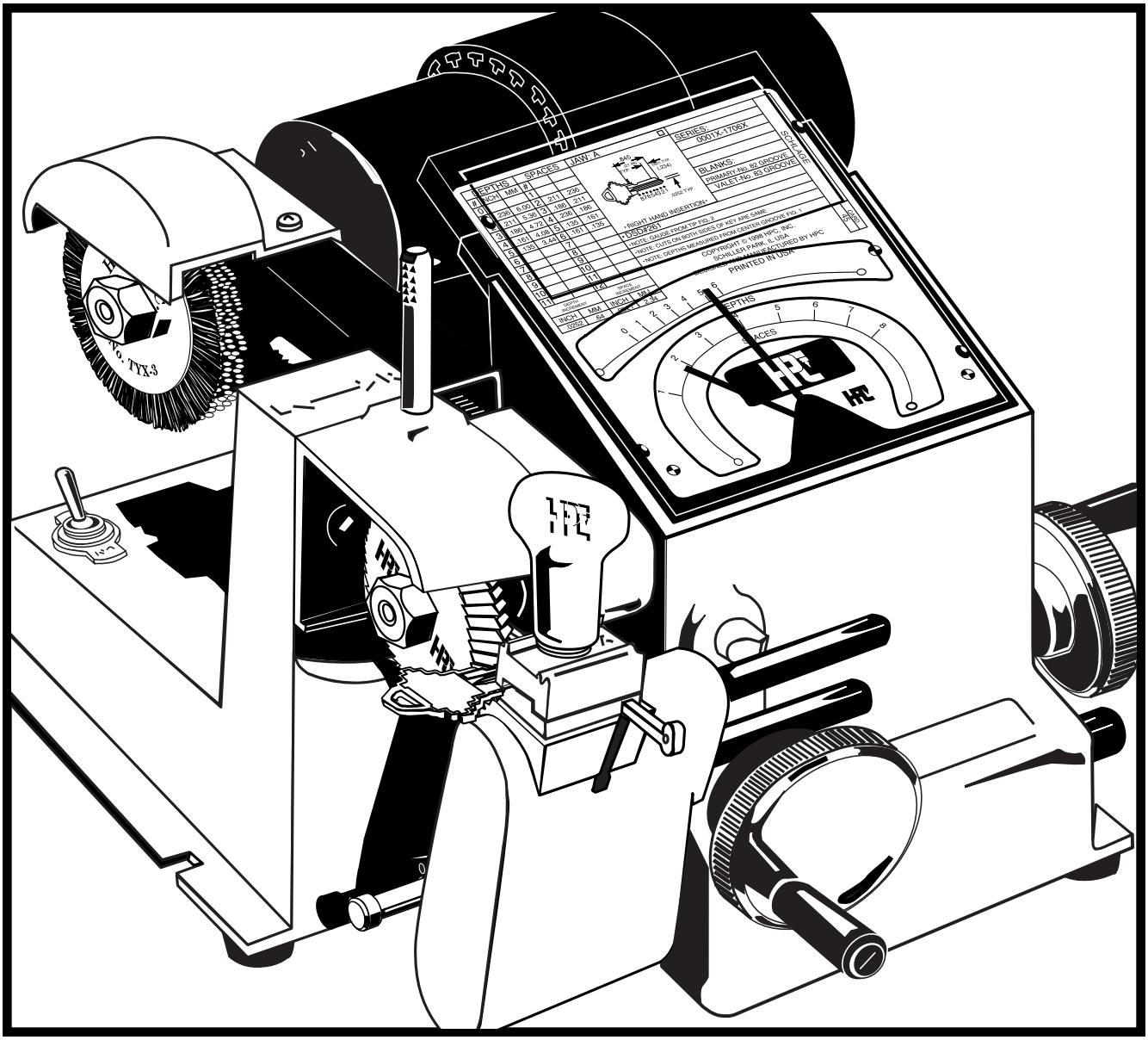
Blitz™

1200CMB

CODE MILLING KEY MACHINE



INTRODUCTION

The Blitz™ is HPC's upgraded version of the 1200CM Code Machine. It works exactly the same as the 1200CM, but has several added features. Both the depth and spacing shafts have fewer threads per inch, which means that substantially less revolutions are needed to achieve the full range of travel. Plus, the Blitz™ Code Machine is equipped with HPC's Softie™ deburring brush with a safety shield.

This revolutionary code milling machine has made all others obsolete and is now the "Standard of the Industry". The Blitz™ is very simple to use and extremely versatile. It cuts by actual manufacturer's depths and spaces. There is no need to convert to micrometer readings. With its rotating cutter head, the Blitz™ can cut Medeco® keys (including Biaxial™).

This machine cuts accurate keys by code quickly and easily. The ease of changing from one manufacturer's specifications to another's is so simple, it is unparalleled. Even radically different changes can be set up in 10 to 30 seconds without wasting any key blanks.

This dramatic code cutting advancement is made possible through the use of code cards, which are inserted in the code machine. These cards have depth and space indicators, plus all the pertinent information such as cutter, jaw, code series, blanks and any special information you may need. Quite often, just replacing a code card is all that is required when making a change. Depth and space adjustments are never required in changing from one manufacturer to another. The Blitz™ Code Machine is a must for those who create master key systems or do code work.

A fully illustrated, step-by-step set of instructions is contained in the following pages. Please, be sure to spend some time reading and understanding all the steps thoroughly - so that NONE of the unique capabilities of this unusual machine is overlooked.

You will find, that cutting keys to dimensions more exact than the lock manufacturer's themselves produce, is accomplished with extraordinary ease - on this machine!

For those people, who currently own a 1200CM style key machine and want to upgrade to a Blitz™, HPC has just such a conversion program. Please contact your Authorized HPC Distributor for details on this process.

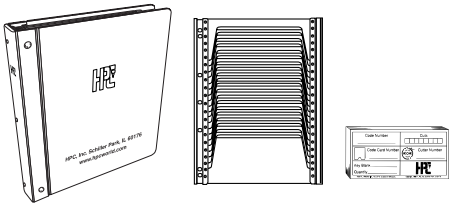
*Medeco® is a registered trademark of Medeco Security Locks, Inc.

PLEASE NOTE:

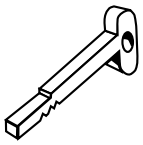
- This manual is for all motorized 1200 series code machines. These include all models of the 1200CMB (ACDC, DC, 240V etc.)
- All usage, adjustment and maintenance functions are the same on all models.
- **All pictures shown are of model 1200CMB.**

PRODUCT PACKAGING CHECKLIST

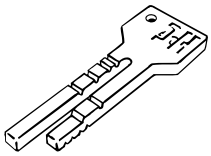
ACCESSORIES INCLUDED:



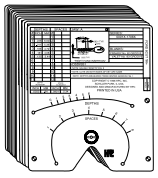
Binder With Storage Panels and Replacement Scratch Pad*
(CARD-B, CARD-BP, CP-5)



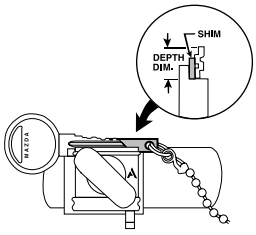
Red Tip Gauge
(CM-1054MA)



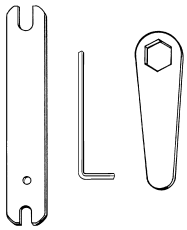
Horseshoe Tip Gauge
(CM-1054R)



Code Card Deck*
(DECK-150)



Key Gauging Shim
(KBPS-1)

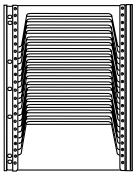


Wrenches
(WRENCH-1, WRENCH-2, WRENCH-3)

***NOT included with 1200B series machines**

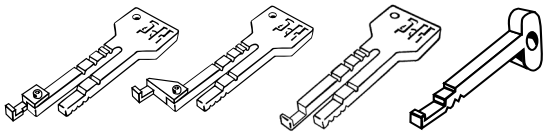
OPTIONAL ACCESSORIES:

Carrying Case
(1200 CASE)

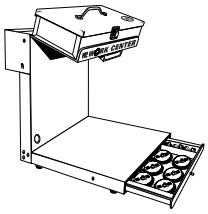


Storage Panel
(CARD-BP)

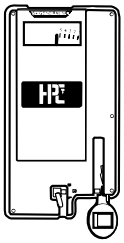
HPC Software



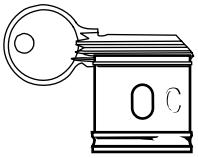
Tip Gauges
(HT-125, HT-625, HT-SD, RT-SD)



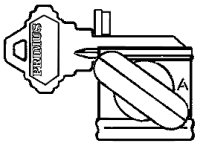
Code Machine Console
(CWC-1)



Key Decoder
(HKD-75)

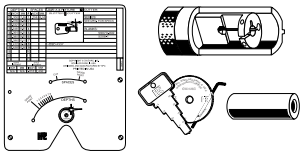


Medeco® Jaw
(MJ-1)

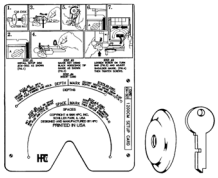


Schlage PRIMUS® Jaw
(SPJ-1)

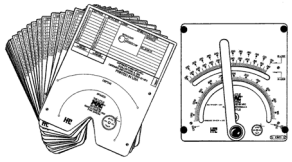
HPC Cutters



Blitz™ Tubular Key Adapter Kit
(TKA-CMB)



Calibration Kit
(CMB-CK)

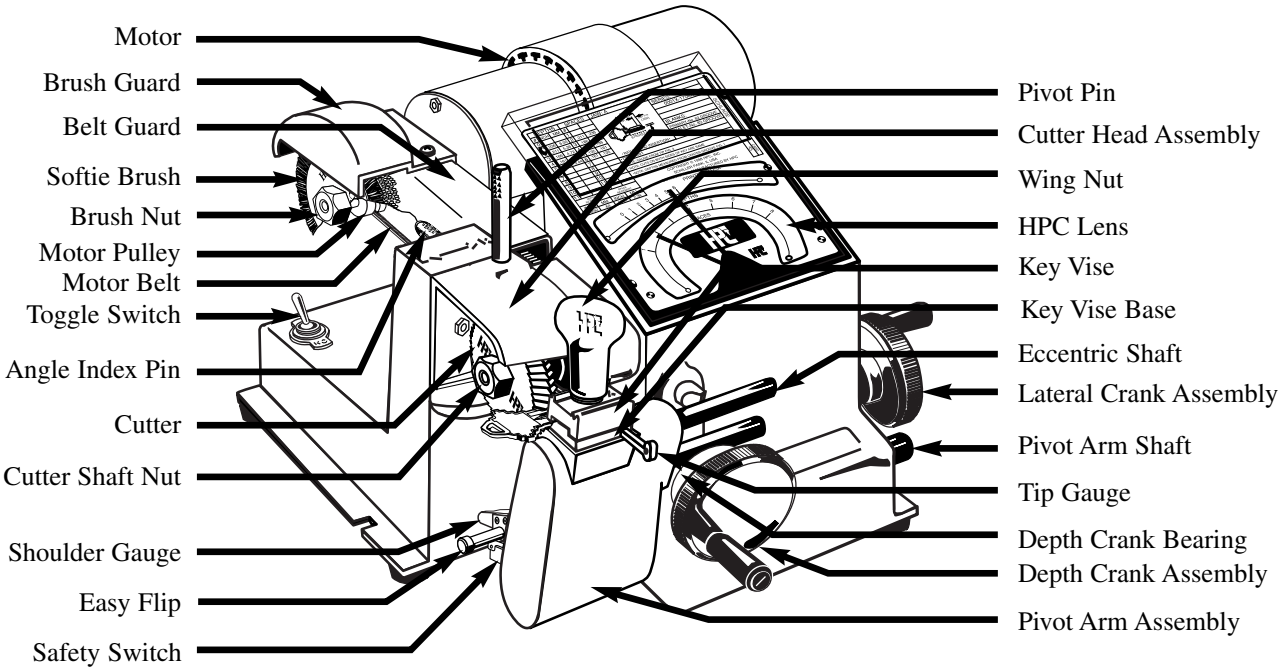


The Little Mac™
(MAC-CM)

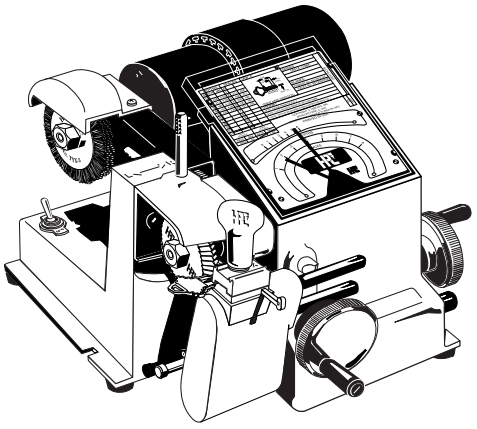
Spacer Washer
(SPR-5)

INDEX

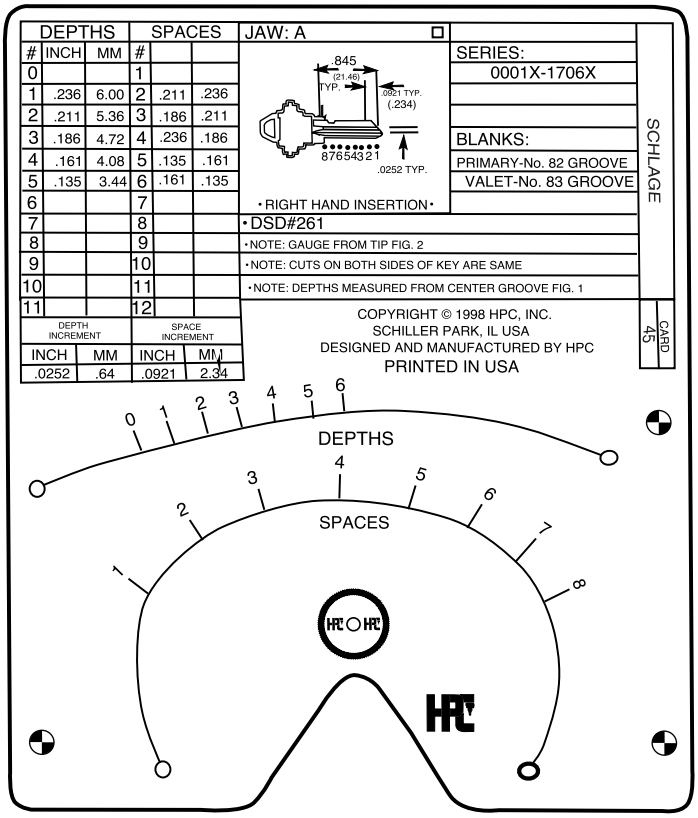
PARTS DESIGNATION CHART FOR THE 1200CMB CODE MACHINE



1.0
CODE CARDS



CODE CARDS



DEPTHS			SPACES		
#	INCH	MM	#		
0			1		
1	.236	6.00	2	.211	.236
2	.211	5.36	3	.186	.211
3	.186	4.72	4	.236	.186
4	.161	4.08	5	.135	.161
5	.135	3.44	6	.161	.135
6			7		
7			8		
8			9		
9			10		
10			11		
11			12		

The correctly positioned depth of cuts is shown in the upper arc. The correct spacing of cuts is shown in the lower arc.

INCLUDED CODE CARDS

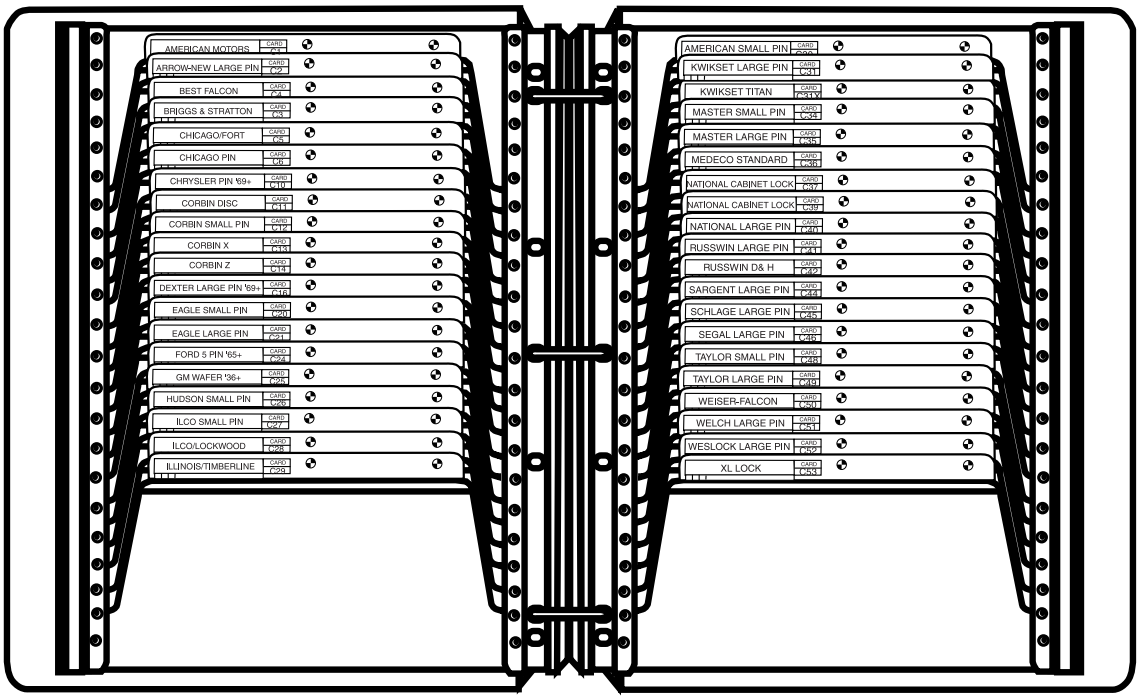
DESCRIPTION	CARD NO.
American Motors (D, E, K, L)	C1
Arrow—New Large Pin	C2
Arrow (A2)/Best/Falcon/Eagle	C3
Briggs & Stratton Disc (Gas Cap)	C4
Chicago/Fort Single-Sided Disc	C5
Chicago Pin	C6
Chrysler Pin (1969+)	C10
Corbin Disc	C11
Corbin Small Pin	C12
Dexter Large Pin (1969+)	C16
Eagle Small Pin Long Space	C20
Eagle Large Pin	C21
Ford 5-Pin Double-Sided (1965+)	C24
General Motors Wafer (1936+)	C25
Hudson Small Pin	C26
Ilco Small Pin	C27
Ilco & Lockwood Large Pin	C28
Illinois/Timberline Single-Sided Disc	C29
American Small Pin	C30
Kwikset Large Pin	C31
Kwikset Titan	C31X
Master Small Pin (7K)	C34
Master Standard Large Pin (1K)	C35
Medeco Standard (.030 inc.)	C36
National Cabinet Single-Sided Disc	C37
National Cabinet Small Pin Standard	C39
National Large Pin	C40
Russwin Large Pin (not system 70)	C41
Russwin D&H Pre-System 70	C42
Sargent Large Pin	C44
Schlage Large Pin	C45
Segal Large Pin	C46
Taylor Small Pin	C48
Taylor Large Pin	C49
Falcon/Weiser Large Pin	C50
Welch Large Pin	C51
Weslock Large Pin/Vanguard	C52
XL Lock Letterbox (X, K Series)	C53
Yale Disc	C55
Yale Small Pin	C56
Yale Large Pin	C57

DESCRIPTION	CARD NO.
Master Pro Series 2001+	C103A
Dom 2H (44) Double-Sided	C104
Dom 2C (17) Single-Sided	C105
National Cabinet Lock Letterbox	C107
Abus Diskus Rekeyable	C112
Lori L10 IC	C115
Schlage Everest IC	C116
Alfa Flexcore	C345
ASSA Twin 6000	CEX1
VW (plain/shoulder side)	CF3
Audi/Porsche/VW	CF4
Volvo/VW (Gas Cap)	CF8
Ford Capri/Fiesta/Jaguar	CF11
Merkur (German Ford) (1985-1989)	CF13
BMW/Mercedes (11-Wafer) (1975+)	CF34
Porsche (911-912)	CF36
Datsun/Mazda/Triumph/Jaguar	CF40
British Autos & Cycles	CF43
Ford Cargo Truck (1986+)/Sterling	CF48
Jaguar XJ6 (10-Disc) (1988+)	CF49
Volvo/ MG Primary & Secondary	CF51
Volvo 240, 740, 760	CF52
Saab (1974+)	CF56
Datsun/Subaru/Nissan (F,M,N,W)	CF60
Ford/Mazda Truck	CF63
Mazda (1970-1980)	CF64
Ford/Mercury/Mazda	CF65
Datsun/Subaru/GMC/Nissan (8-Disc)	CF67
Ford/Mazda MPV Minivan 10-Cut	CF68
Honda Ignition (thru '76) Series (2001-4949)	CF70
Honda Door/Trunk (thru 1976) (Series 111111-444444)	CF71
Acura (1986+)/Honda (1982+)	CF73
Acura (1990+)/Honda (1988+)	CF74
Hyundai/Toyota/Isuzu/Mitsubishi	CF80
Chevy Luv (B)/Toyota (1969+)	CF81
Toyota (unlettered) (1969+)	CF82
GM-Chevy/Isuzu/Mitsubishi	CF85

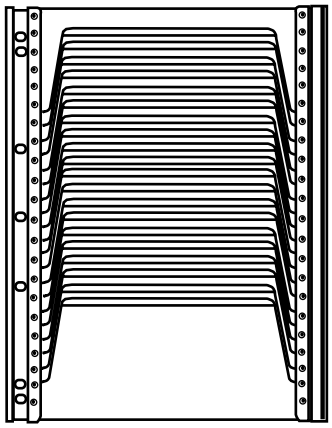
INCLUDED CODE CARDS

DESCRIPTION	CARD NO.
GM-Chevy Nova (R,S)	CF86
Toyota 8-Disc	CF87
Toyota/Geo/Isuzu/Suzuki	CF88
Geo Tracker/Suzuki Sidekick/Isuzu	CF89
Fiat Ignition (1967+)	CF90
Fiat Secondary	CF91
Fiat Strada (1979-1980)	CF94
Fiat Strada (1981+)	CF96
Iveco Truck (P,Z)	CF99
Chrysler/Renault/Peugeot (Primary)	CF100
Chrysler/Renault (Secondary)	CF101
Chrysler/Renault (Secondary)	CF102
Chrysler/Renault/Peugeot	CF114
Chrysler/Renault/Peugeot/Eagle	CF118
Eagle Premier Ignition (1988+)	CF119
Hyundai-U.S. (X-Series) (1986+)	CF201
Yugo Secondary (Z)	CF202
Yugo Secondary (G)	CF203
GM-Allante (1987+)	CF204
GM-Pontiac LeMans (S) (1988+)	CF205
GM-Cavalier (1991+)/"N" Body (1992+)	CF206
GM-Saturn	CF207
Geo Prizm/Toyota Camry/Corolla	CF208
Toyota Corolla Wagon (1993+)	CF209
Hyundai Sonata	CF211
GM (1994+) Modular Ignition Program	CF215
Kia 2003	CF236
Kia/Hyundai 7-Cut (X,Y Series)	CF301
Hyundai 8-Cut (S,T Series)	CF302
Ford Aspire (Kia) 10-Cut (B Series)	CF303
Nissan Pathfinder 96+	CF304
Kia Sephia 98+	CF305
Mitsubishi Galant 8-Cut 99+	CF306
Toyota 2001	CF307
Honda Motorcycle ('76-'82)	CMC30
Honda Cycles (1983+)	CMC37
Kawasaki Cycles (1979+)	CMC50
Kawasaki 7-Cut (A,B Series)	CMC51A
Kawasaki Cycles 93+	CMC51B
Suzuki Cycle 101-499 Series	CMC70
Suzuki Cycles (1988+)	CMC71
Yamaha Cycles (1981+)	CMC80
Yamaha Cycle 77-80	CMC81
Kaba Peaks (140) (6-Pin) (A2)	CPKS1
Kaba Peaks (150) (6- & 7-Pin) (A2)	CPKS2
Medeco Biaxial	CSP3
Medeco® Biaxial 60-Series	CSP4
Corbin/Russwin/Emhart (system 70)	CX1
Master Super Large	CX2
Medeco Small Pin (thin head)	CX3
Corbin (system 70) (X-class/27-99)	CX5
Corbin/Russwin/Emhart (system 70)	CX6A
Russwin (system 70) (K,N) (1977+)	CX7
Best Falcon Eagle Arrow IC A3 (.018 inc.)	CX10
Best Falcon Eagle Arrow IC A4 (.021 inc.)	CX11
Chicago/Steelcase Small Pin	CX14
Hudson Disc	CX32
Ford 10-Cut	CX56
LSDA (Taiwan) Large Pin	CX58
Chrysler Double-Sided (1989-1992)	CX59
Chrysler Double-Sided (1993+)	CX60
Ford Eight Cut (96+)	CX101
Chrysler 98 8-Cut	CX102
Saturn 2003+	CX263
Micrometer Card "B" Jaw (inch)	CMBI
Micrometer Card "B" Jaw (metric)	CMBM
Micrometer "A" Jaw (black tip-metric)	CMHM
Micrometer "A" Jaw (black tip-inch)	CMHT
Micrometer Card "A" Jaw (inch)	CMMI
Micrometer Card "A" Jaw (metric)	CMMM
Micrometer "A" Jaw (red tip-metric)	CMRM
Micrometer "A" Jaw (red tip-inch)	CMRT

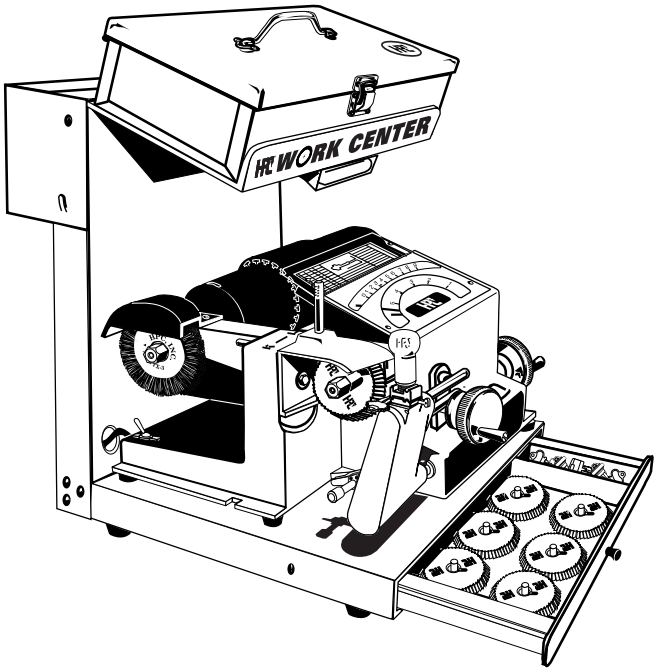
CODE CARDS



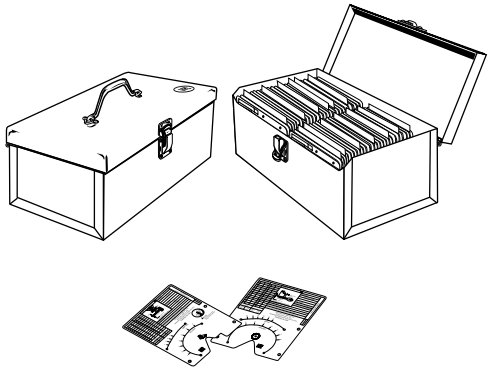
STORAGE - When not in use, the Code Cards should always be returned to the slotted panels within the easel type “stand up” notebook and stored away from direct sunlight or extreme heat. The cards are inserted sideways with the notch to the right, so that the card number and manufacturer’s name shows.



Additional Panels
Part No. CARD-BP

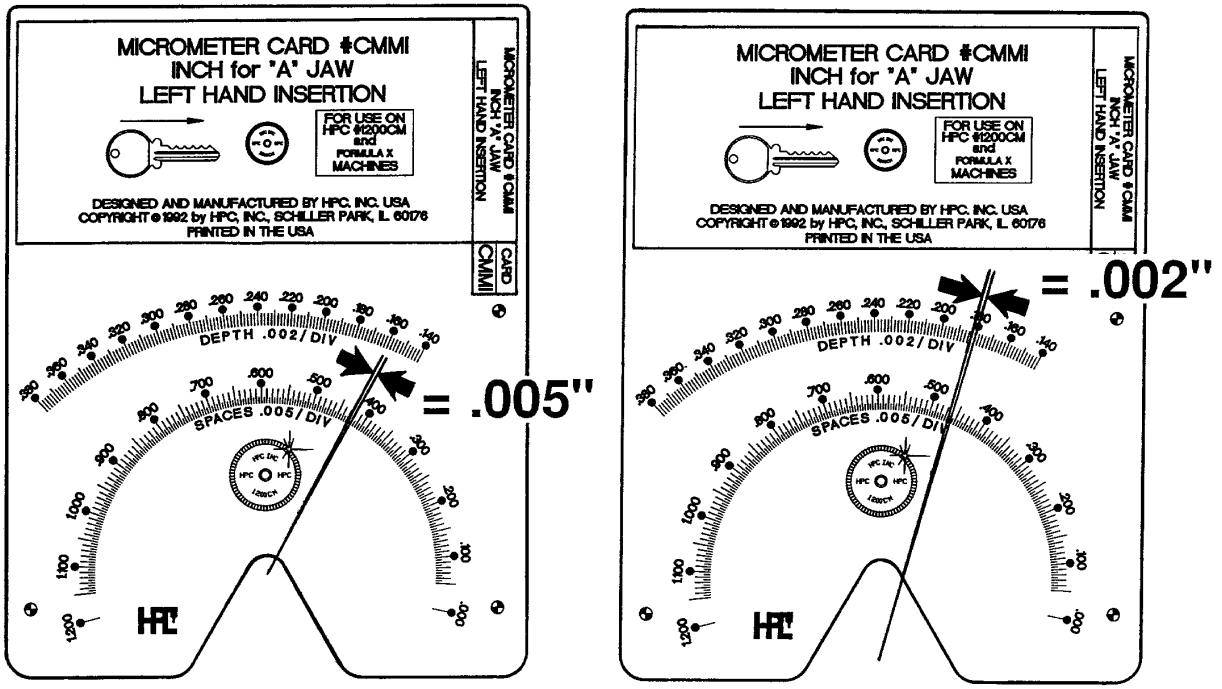


Code Machine Console
No. CWC-1



Code Card Storage Case
No. CWC-1B

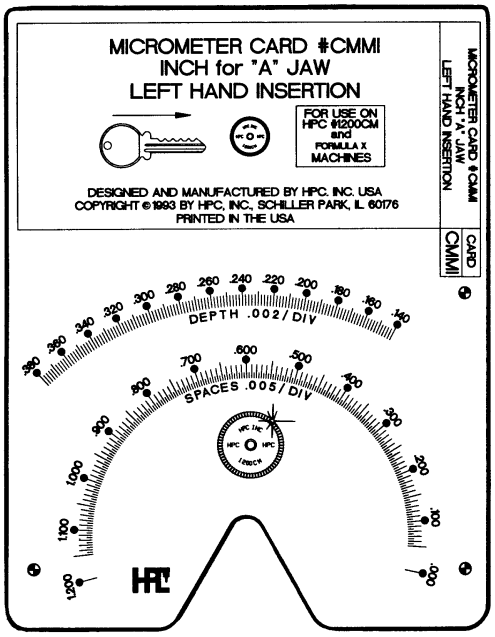
The code machine console fits your 1200CMB, bringing code cards, cutters and tools within easy reach.
Additional storage panels and the code machine console may be ordered through your HPC Distributor.

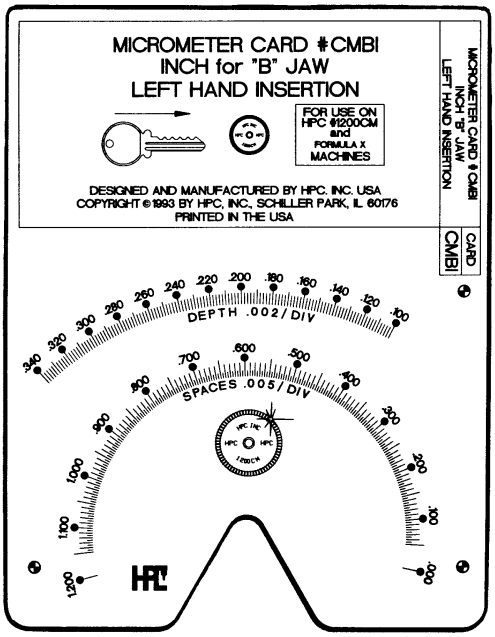


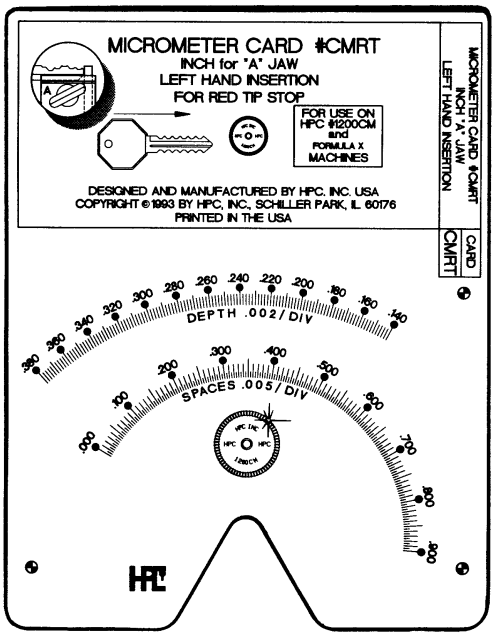
MICROMETER CARDS

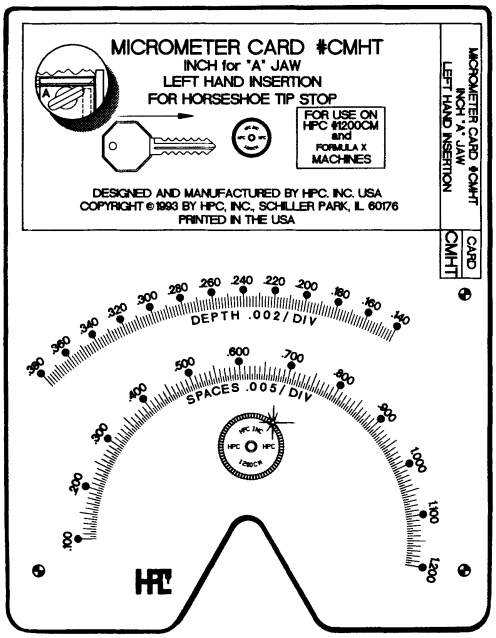
CMMI	Micrometer Card “A” Jaw (inch)
CMBI	Micrometer Card “B” Jaw (inch)
CMRM	Micrometer Card “A” Jaw (red tip-metric)
CMRT	Micrometer Card “A” Jaw (red tip-inch)
CMHM	Micrometer Card “A” Jaw (black tip-metric)
CMHT	Micrometer Card “A” Jaw (black tip-inch)
CMMM	Micrometer Card “A” Jaw (metric)
CMBM	Micrometer Card “B” Jaw (metric)

Universal micrometer cards allow you to cut keys to any lateral and depth dimension in thousandths of an inch (or hundredths of a millimeter). These eight cards provide the complete spectrum of flexibility of a “Dial Indicator” type machine.

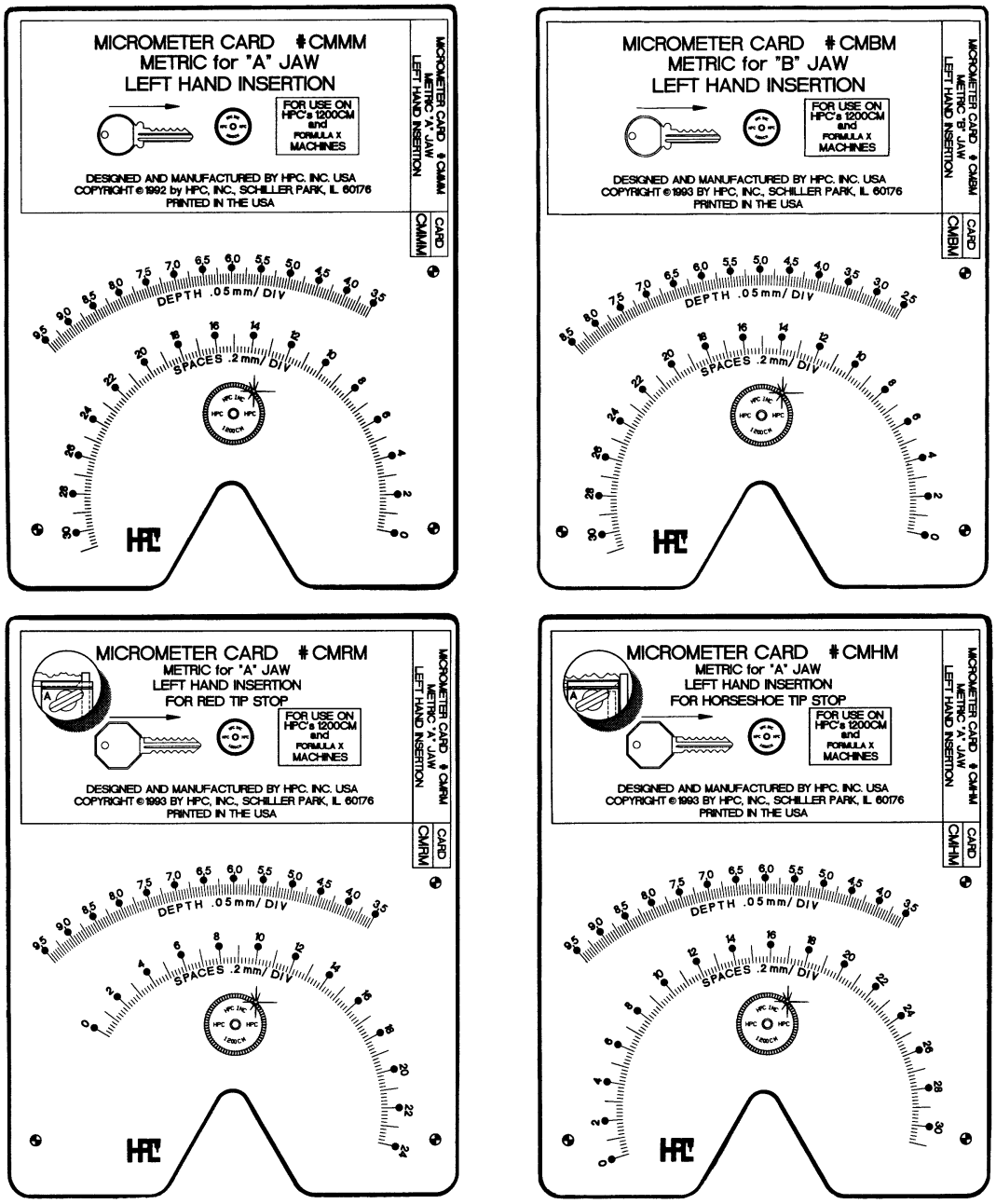








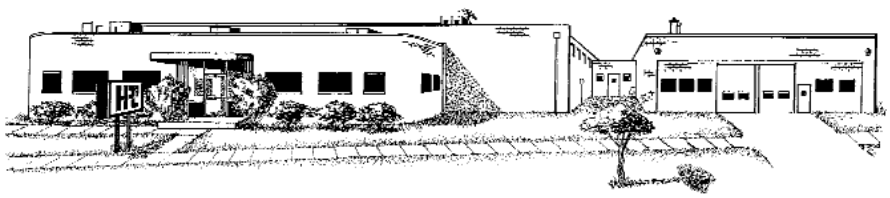
Micrometer cards in Standard.



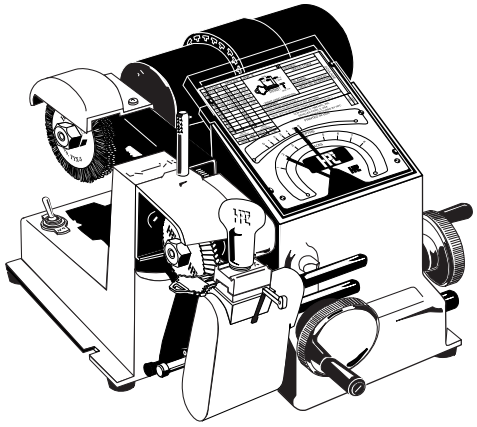
Micrometer cards in Metric.

visit us online at:

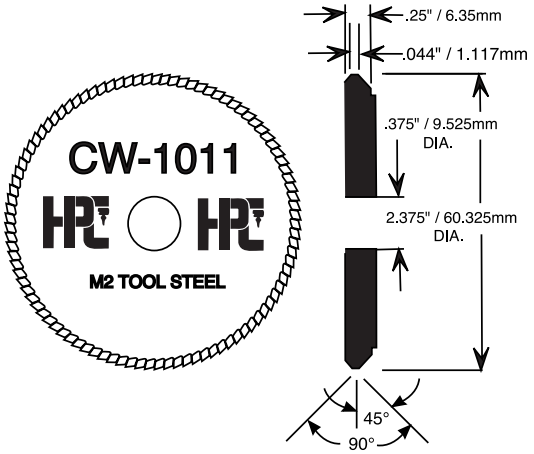
www.hpcworld.com



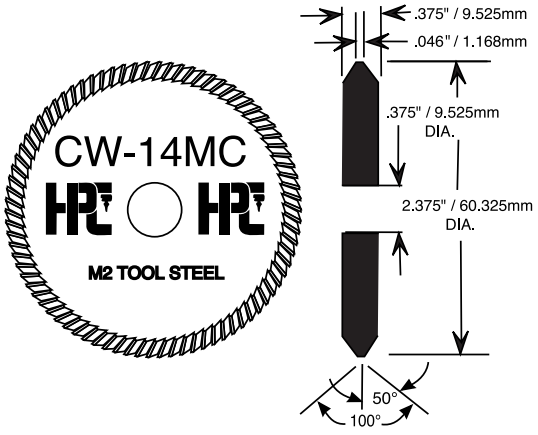
2.0
CUTTERS



CUTTERS SUPPLIED WITH 1200CM/CMB/MAX MACHINES



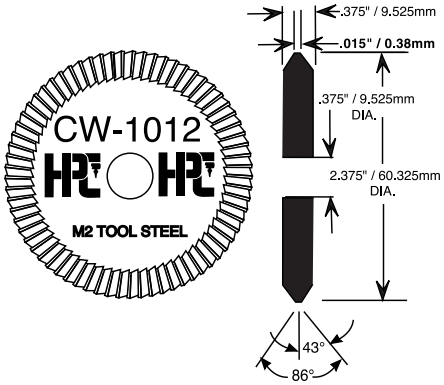
No. CW-1011
90° angle, small cylinder cutter.



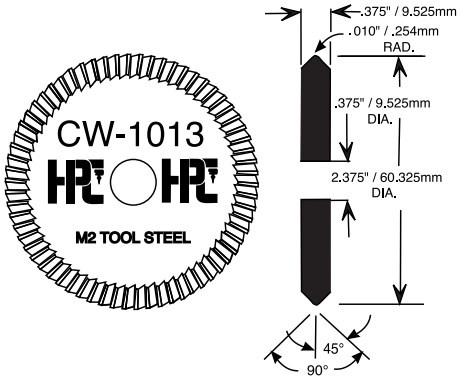
No. CW-14MC
100° angle, standard large cylinder cutter.

The Model-1200CMB is supplied with two high speed cutter wheels. The CW-1011 cutter is used for cabinet locks, padlocks and most automotive blanks. The CW-14MC cutter is used for most standard large cylinder keys.
The Machine is delivered and set-up with the CW-14MC cutter and the CW-1011 cutter is placed in a slot in the styrofoam next to the machine.

OPTIONAL CUTTERS FOR 1200CM/CMB/MAX



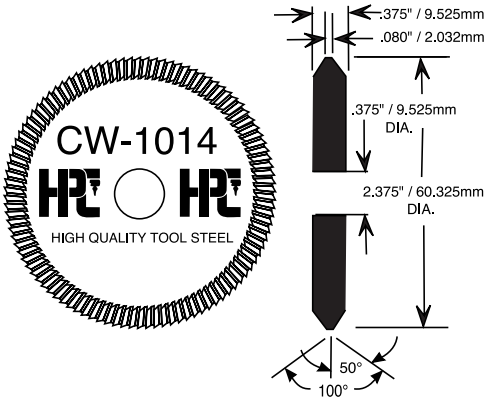
No. CW-1012
Optional milling cutter has angle and pin seat for cutting Medeco® High Security.



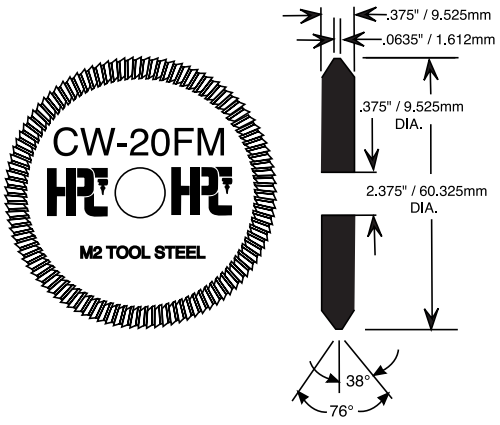
No. CW-1013
Only available cutter with exact angle of cut and full "V" pin seat for Emhart High Security.

*Medeco® is a registered trademark of Medeco Security Locks, Inc.

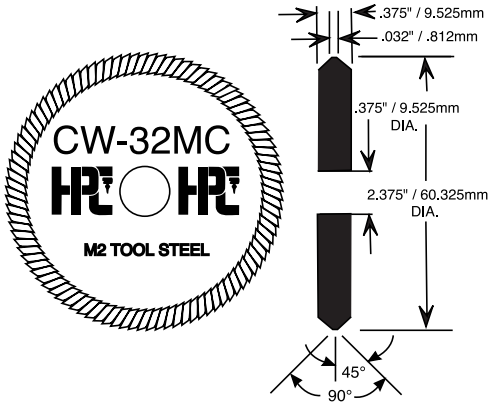
OPTIONAL CUTTERS FOR 1200CM/CMB/MAX CONTINUED



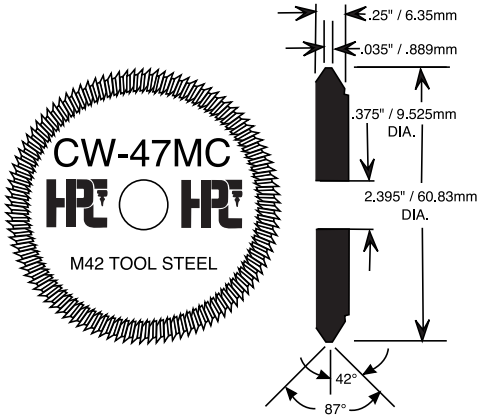
No. CW-1014
This specially designed cutter has .080 flat for one step cutting of Kwikset, Weslock, & Weiser using original pins.



No. CW-20FM
76° angle, double angle, flat mill tooth for Sargent.



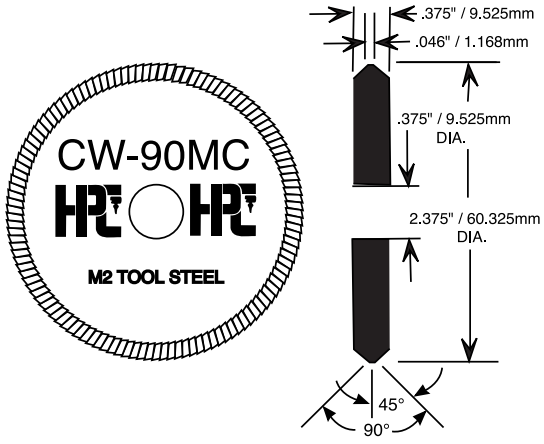
No. CW-32MC
Specially designed 90° angle, tool steel cutter for ASSA keys with .032 flat.



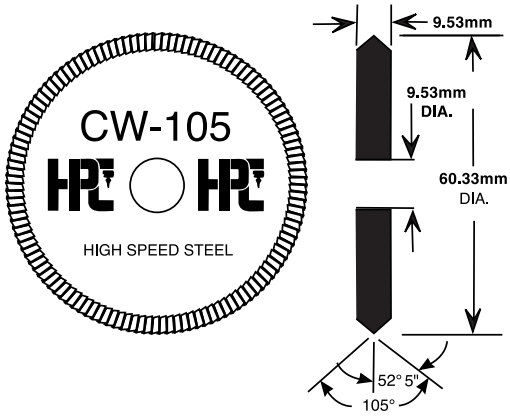
No. CW-47MC
87° angle, tool steel cutter.

Optional cutters, such as CW-1012 (used with MJ-1 “C” jaw for the cutting of standard commercial Medeco® keys) are available. The correct cutter to be used is printed on each card. One of the important features of this machine, is its ability to maintain correct depths and spaces with virtually no set-up time involved, even when changing cutters. This feature is reliant upon using cutters whose outside diameters are matched and equal.

Optional Cutters for 1200CMB/CMB/MAX Continued

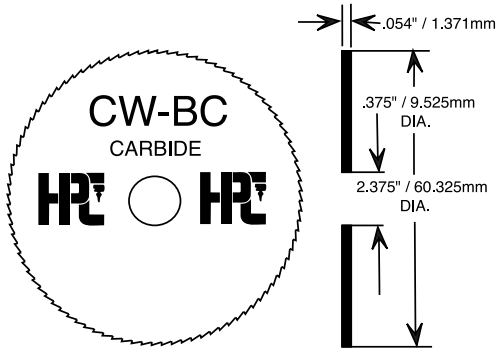


No. CW-90MC
90° angle, large cylinder cutter for shallow & deep cuts in adjacent positions. For Best, Falcon, Eagle, Arrow, Kaba, and IC core.

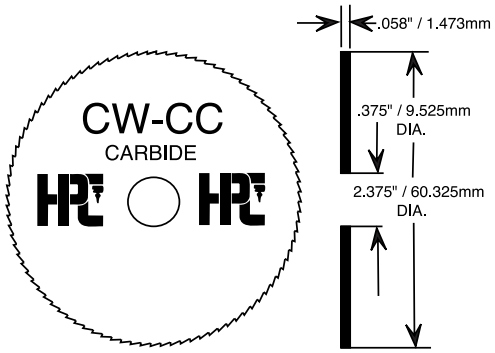


No. CW-105
105°, double angle cutter for ASSA.

Slotter Cutters for 1200CM/CMB/MAX

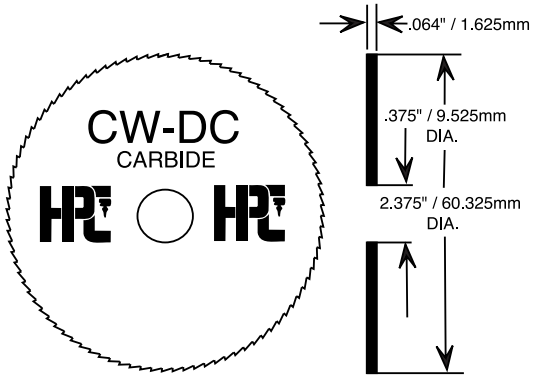


*No. CW-BC**
.054 carbide slotter cutter for Yale.
*(requires spacer SPR-5)

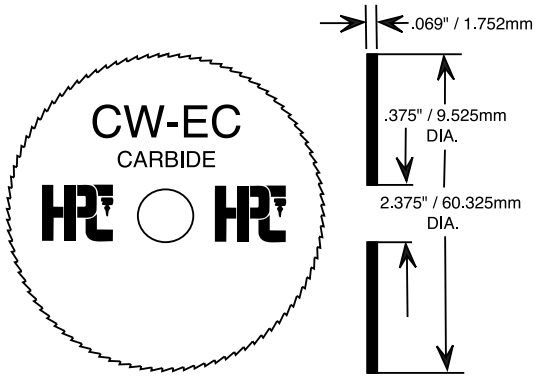


*No. CW-CC**
.058 carbide slotter cutter for S&G, Yale, Lloyd Matheson.
*(requires spacer SPR-5)

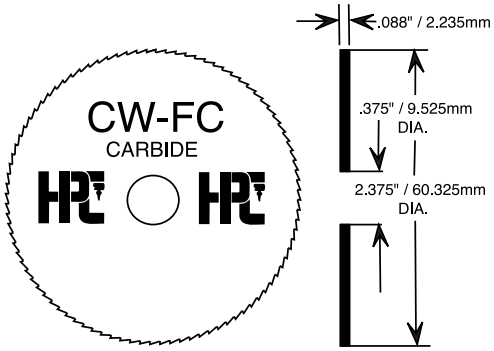
More Slotter Cutters for 1200CM/CMB/MAX



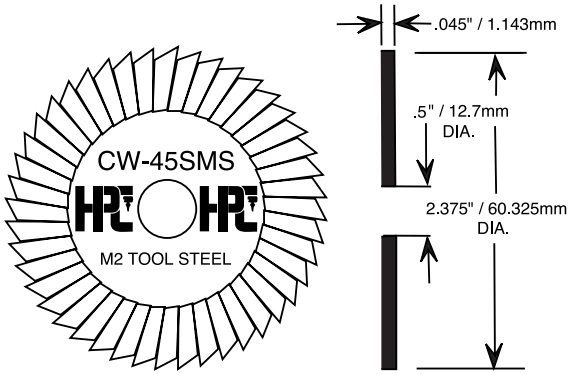
*No. CW-DC**
.064 carbide slotter cutter for S&G.
*(requires spacer SPR-5)



*No. CW-EC**
.069 carbide slotter cutter for Diebold.
*(requires spacer SPR-5)



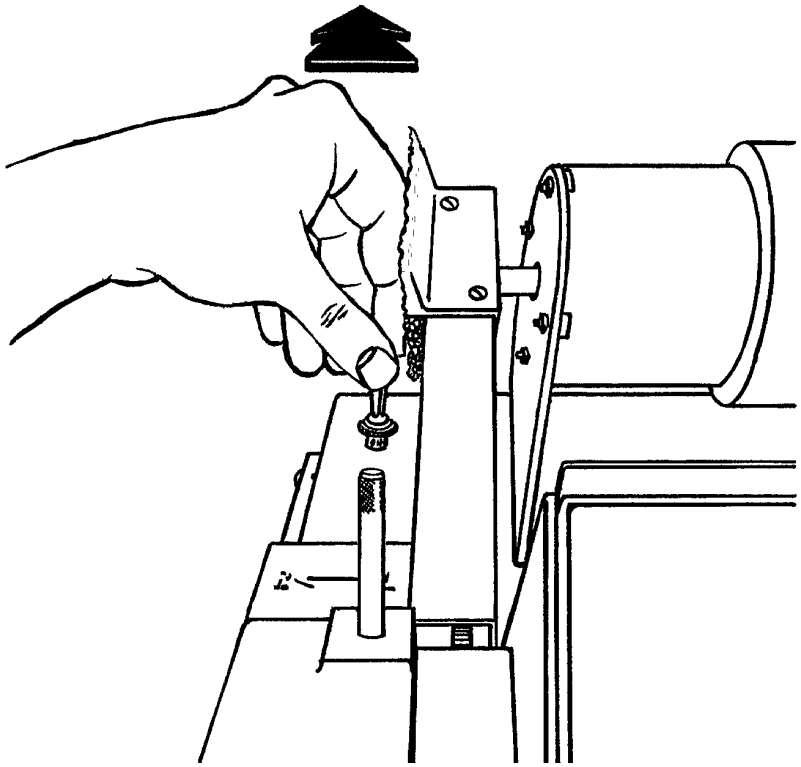
*No. CW-FC**
.088 carbide slotter cutter for Mosler.
*(requires spacer SPR-5)



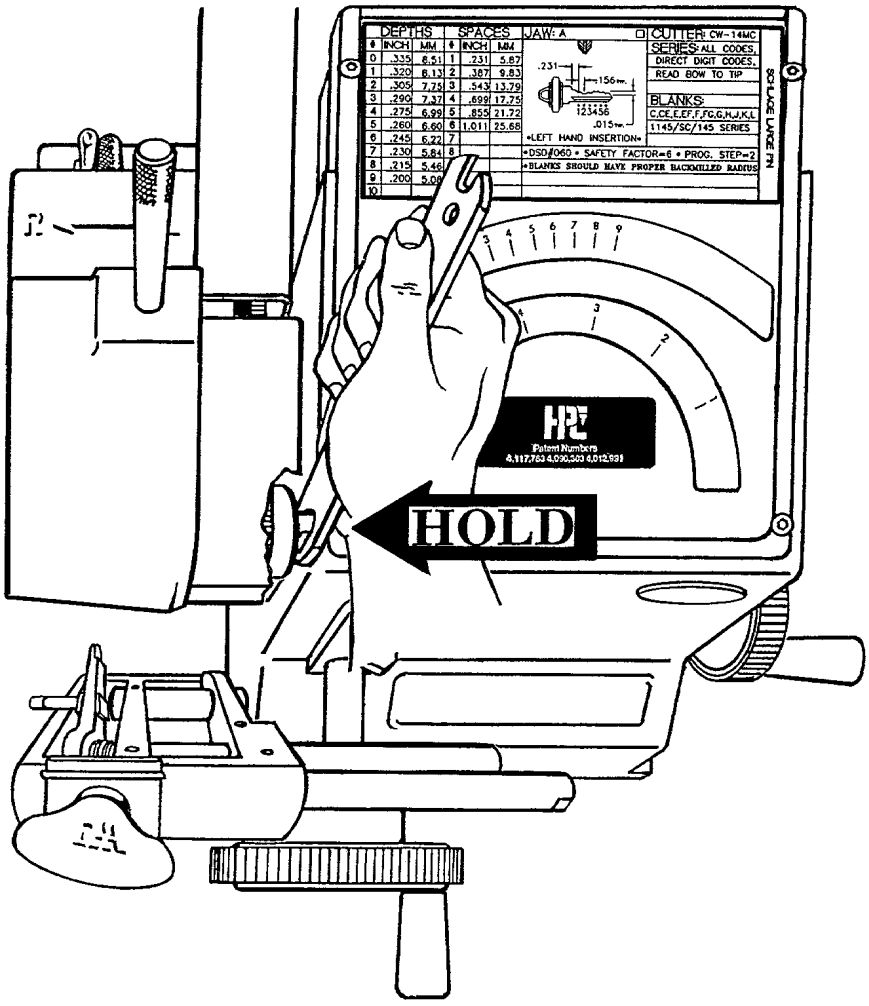
*No. CW-45SMS**
.045 M2 tool steel combination standard/flat steel cutter for safety deposit boxes.
*(requires spacer SPR-5)

2.2 Changing Cutters:

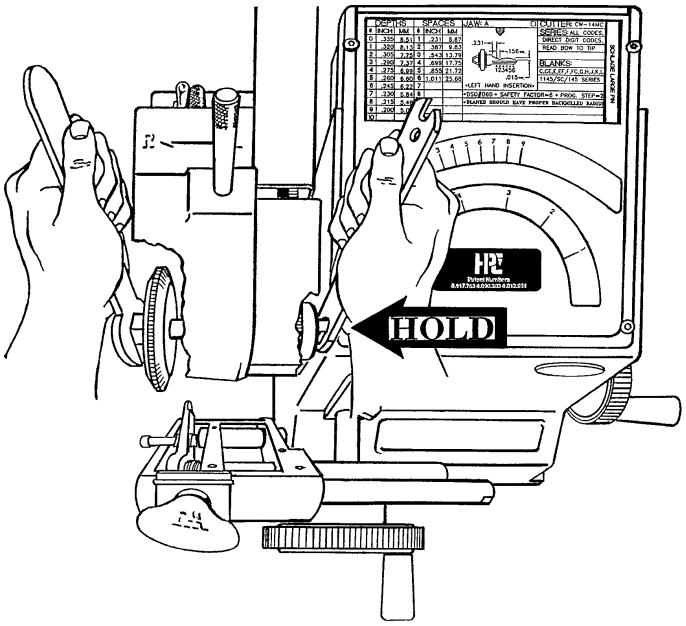
The following procedure is recommended when changing from one cutter to another.

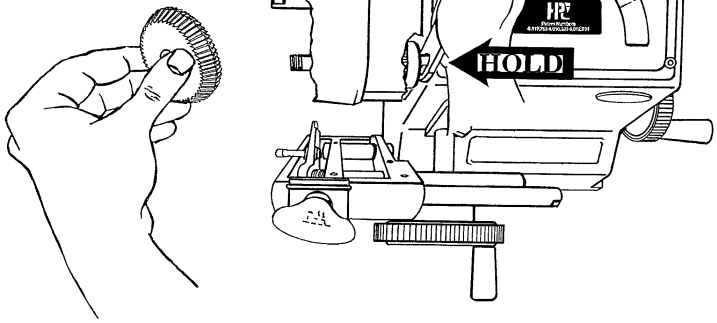


Turn off the machine.

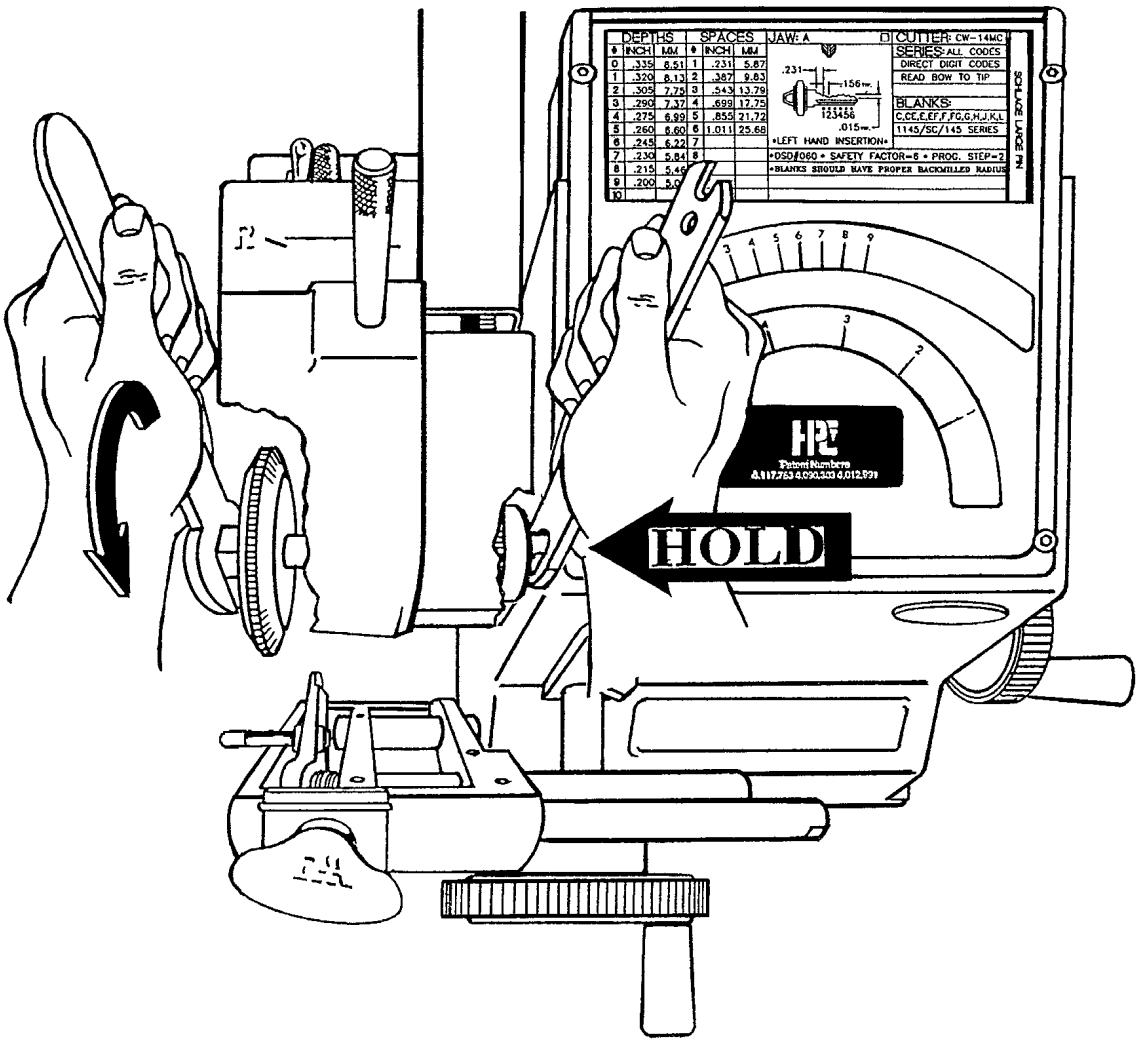


Hold the cutter shaft fast with a 1/2” open end wrench. (No. WRENCH-1 supplied)





Loosen the cutter shaft nut, with a 3/4” open end wrench (No. WRENCH-3 supplied) by turning it clockwise (left hand thread). Remove the cutter.



- Slide the replacement cutter wheel onto the shaft. **IMPORTANT:** Be sure cutter is installed for a clockwise rotation!
- Hold the shaft with the 1/2” wrench.
- Install the nut, turning it counter-clockwise onto the shaft with a 3/4” wrench. **<u>Do not</u> overtighten the nut.**

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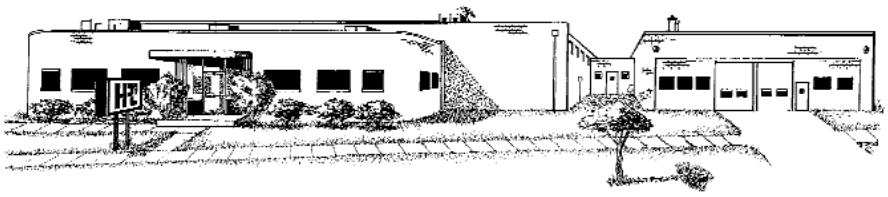
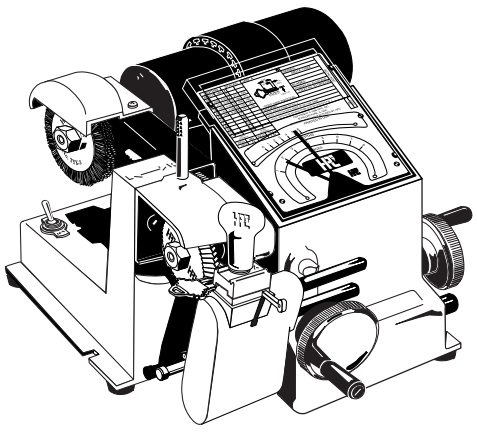


3.0
GAUGING AND HOLDING KEYS



3.1 Key Gauge Safety Switch

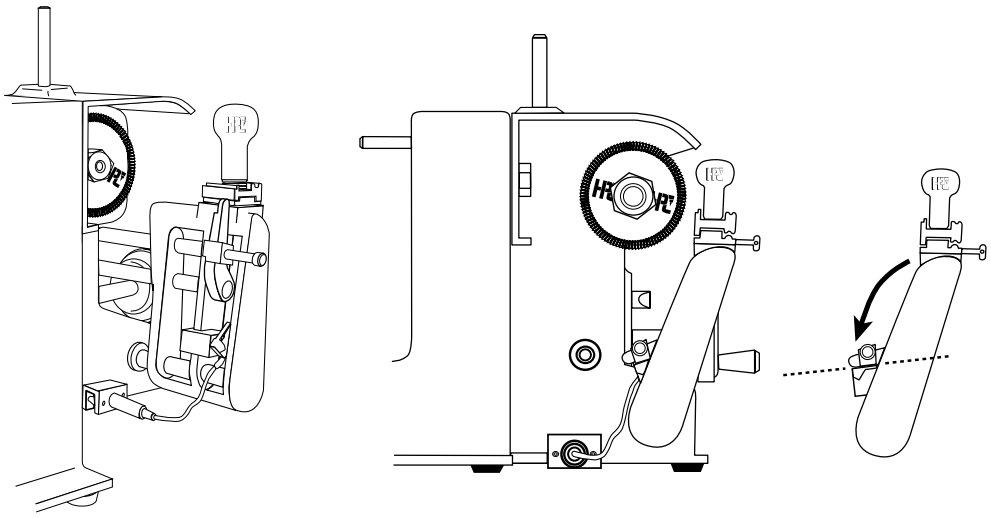
This machine is equipped with a Shoulder Gauge Safety Switch to protect the shoulder gauge from being accidentally damaged by the cutter. This type of accident occurs if the shoulder gauge is left up at the key after gauging rather than being lowered to its rest position before cutting the key.

Cutting A Key

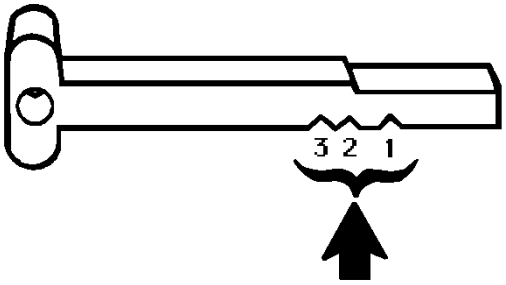
To cut a key you must lower the gauge to its rest position before turning on the cutter motor. Turning on the cutter motor is accomplished with the switch at the rear of the machine. Turning on the machine's cutter motor with the shoulder gauge not in the rest position will result in the safety switch relay disengaging the cutter motor's power. This will also happen if the gauge is moved from its rest position while the cutter motor is already on.

Resetting the Machine

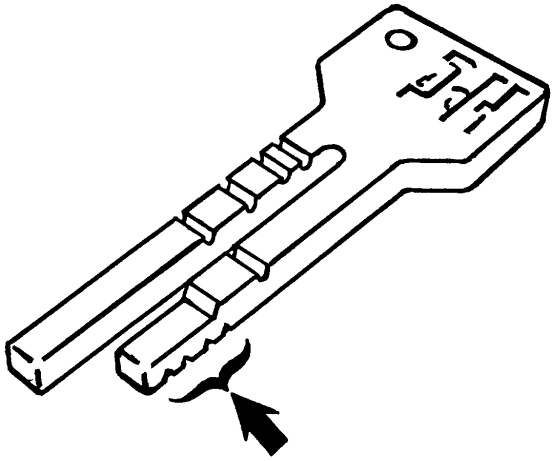
To reset the machine, lower the shoulder gauge to its rest position, then turn off the machine with the regular switch located at the rear of the machine. The machine should now be turned back on to cut the key. Resetting the machine prevents the Shoulder Gauge Safety Switch from being used as a power switch to turn the machine on and off.



3.2 Key Gauges:

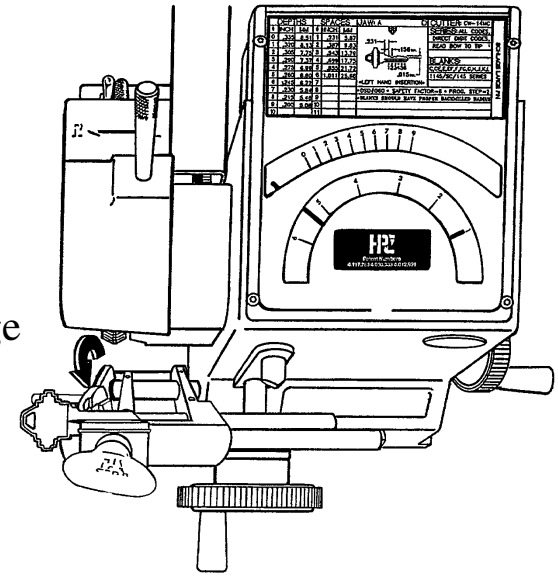


Red (Plastic) Tip Gauge
No. CM-1054MA



Black (Horseshoe) Tip Gauge
No. CM-1054R

Shoulder Gauge



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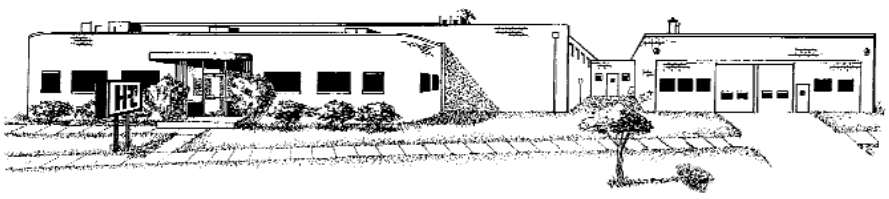
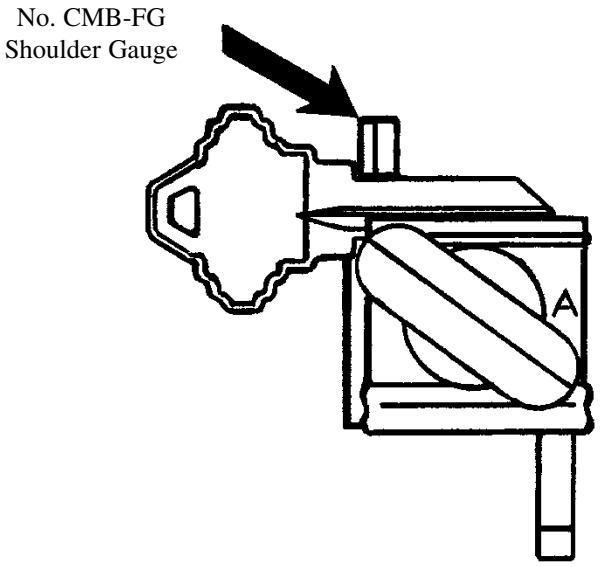


3.3 Standard Gauging Using Jaw A:

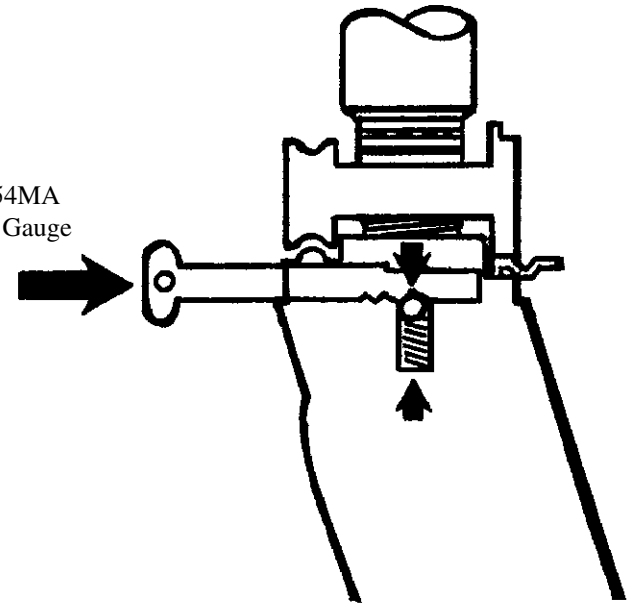


STANDARD CYLINDER KEY
WITH SHOULDER GAUGING USING JAW A.

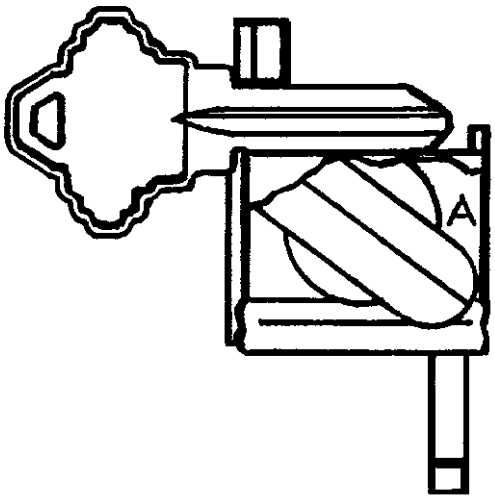
(Example: Schlage, Card No. C45)

Place key blank in the jaw with the shoulder touching the left hand edge of shoulder gauge. Flip the shoulder gauge down before turning on the motor.
The space dimension can be significantly affected by any damage incurred to the shoulder gauge.
Damage to the shoulder gauge can occur when it comes in contact with the cutter, or when undue pressure is used when gauging against the key's shoulder.

No. CM-1054MA
Key Vise Tip Gauge



Key vise tip gauge pulled to rear and into Position No. 1.



Wing nut and top jaw of vise removed to show a top view of the bottom jaw only, for key positioning.

Make sure the key is lying flat against ledge before tightening wing nut.

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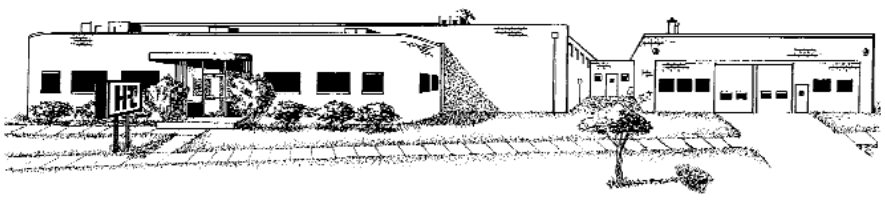
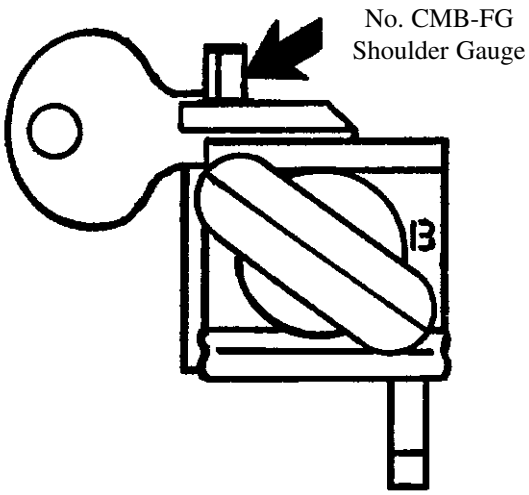


3.4 Standard Gauging Using Jaw B:

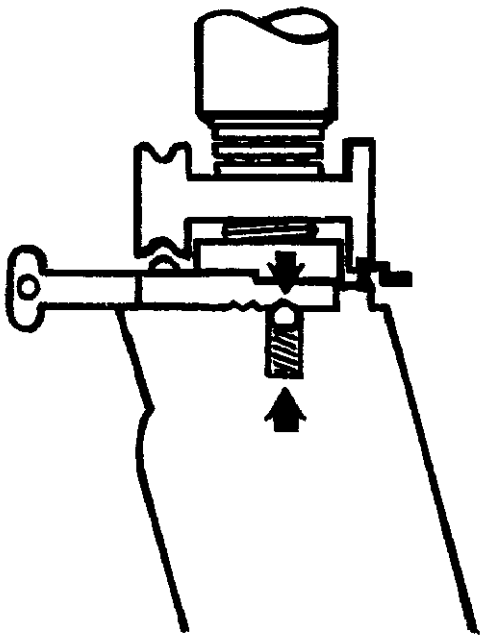


STANDARD CYLINDER KEY
WITH SHOULDER GAUGING USING JAW B.

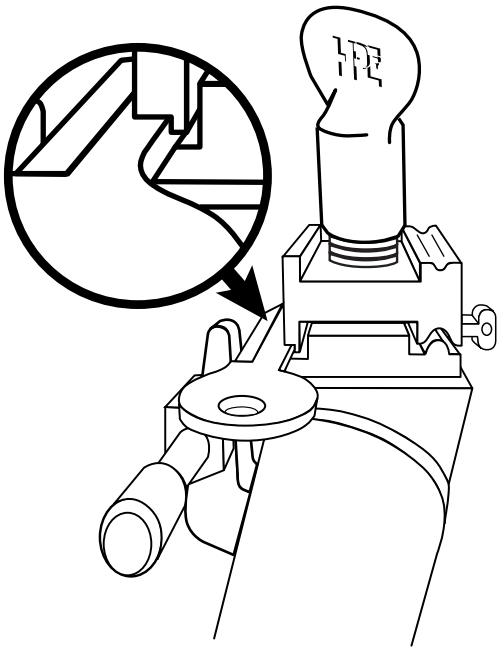
(Example: Master, Card No. C34)

Key shoulder touches left hand edge of shoulder gauge.
Flip gauge down before turning on motor.

No. CM-1054MA
Tip Stop

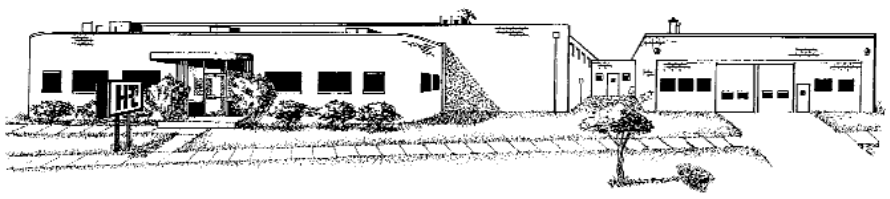


Key lies in front of lip. Key vise tip gauge pulled to rear. (Position No. 1)

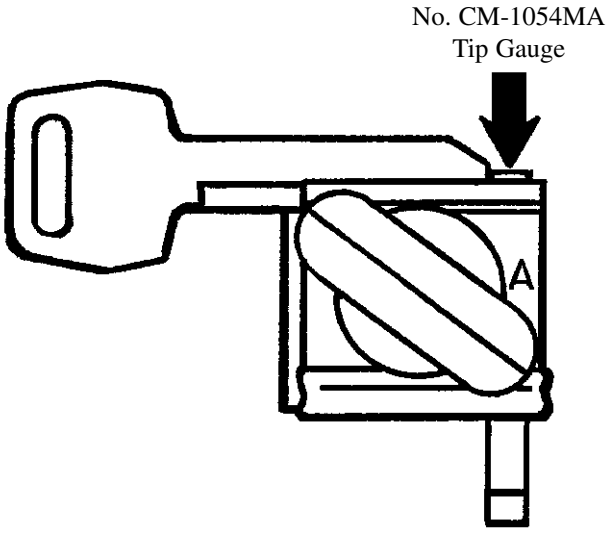


Make sure the key is laying flat against lip, before tightening wing nut.

HPC, Inc.
Designer and Manufacturer of Security Products Since 1956.



3.5 Red Full Short Tip Stop:

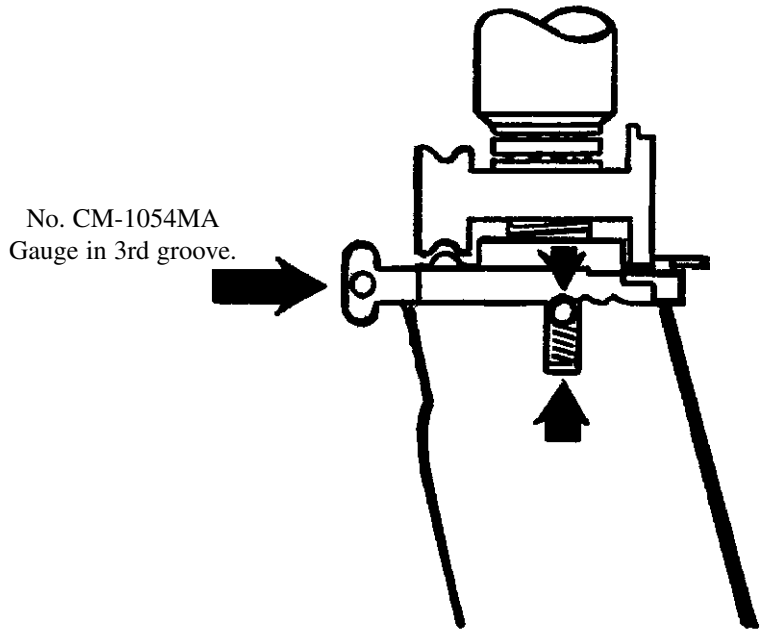


RED FULL SHORT TIP STOP

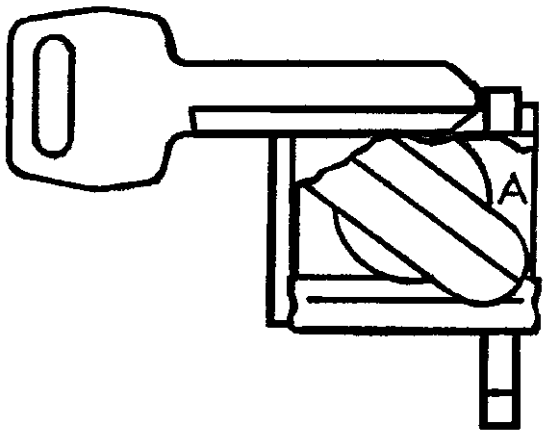
GAUGING USING JAW A.

(Example: Ford, Card No. C24)

Key is gauged from tip.



Key vise tip gauge, pushed inward to the third groove position. Tip gauge is pulled to rear while cutting.



Wing nut and top jaw of vise removed to show a top view of the bottom jaw only, for key positioning and stop bar settings.

Key blank grooving ledge lies directly on face of key vise or key vise base, for ignition and trunk keyway. No riser blocks are used.

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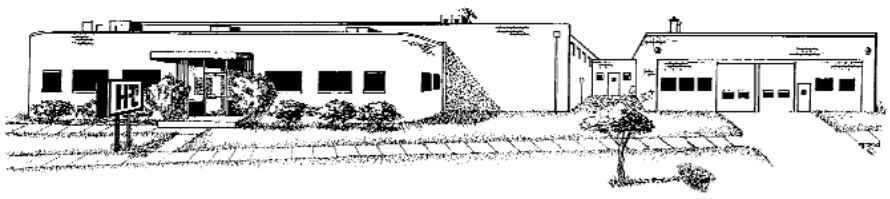
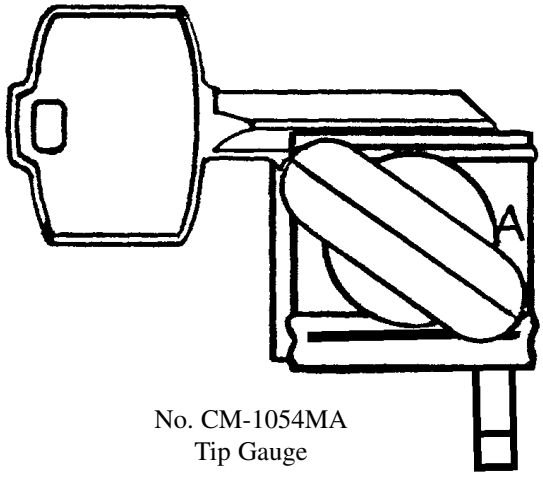


3.6 Red Middle Short Tip Stop:



No. CM-1054MA
Tip Gauge

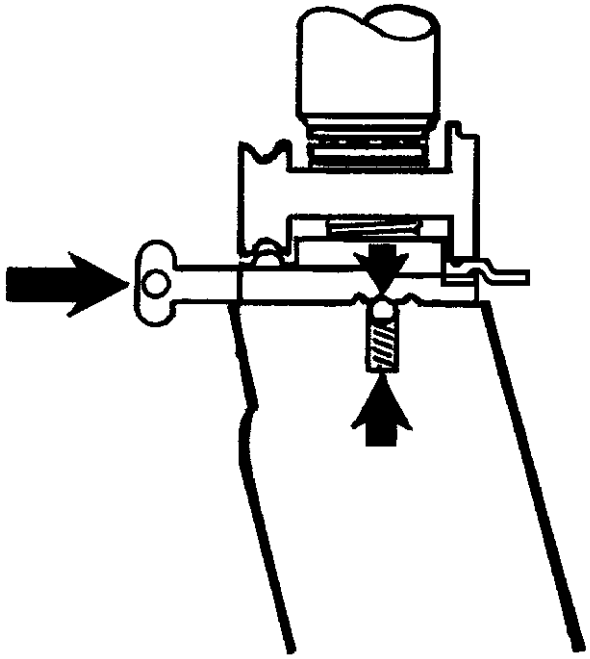
RED MIDDLE SHORT TIP STOP

GAUGING USING JAW A.

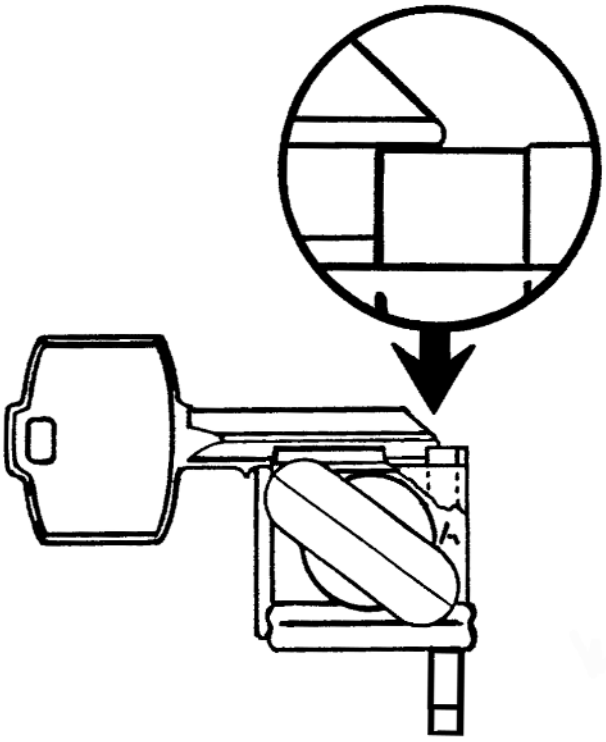
(Example: KABA-PEAKS 6-Pin, Card No. CPKS1)

Key is gauged from bottom stop, not tip.

No. CM-1054MA
Key Vise in 2nd Position.



Key vise tip gauge, pushed inward to the second groove position. Tip gauge is pulled to rear while cutting.

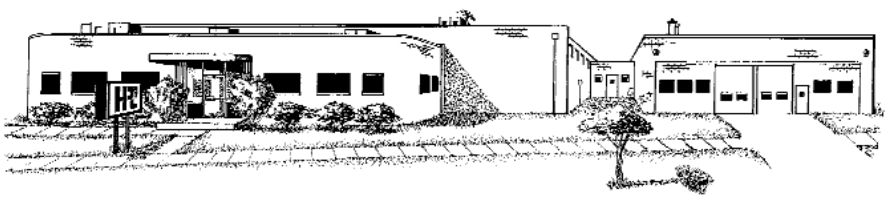


Top jaw of vise removed to show a top view of the lower jaw only, for key positioning and stop bar settings.

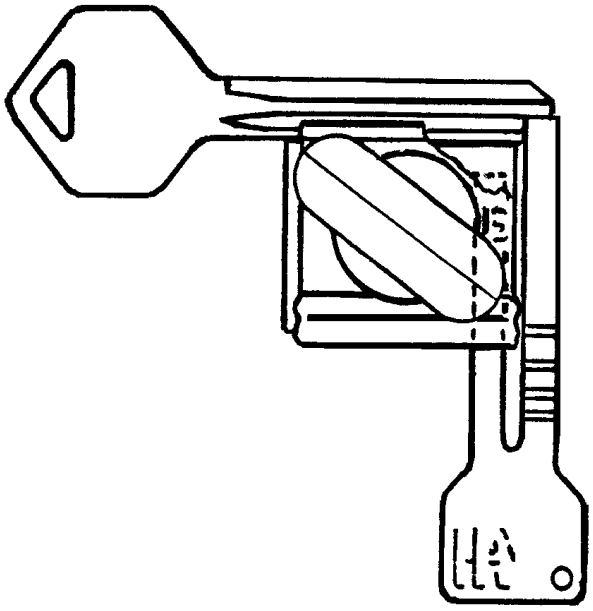
Gauge against tip stop. Be sure key lies flat against ledge before tightening wing nut.

*For BEST type blanks see section 3.5

Count on Quality:
Demand HPC.



3.7 Black Horseshoe Tip Stop (Short End)

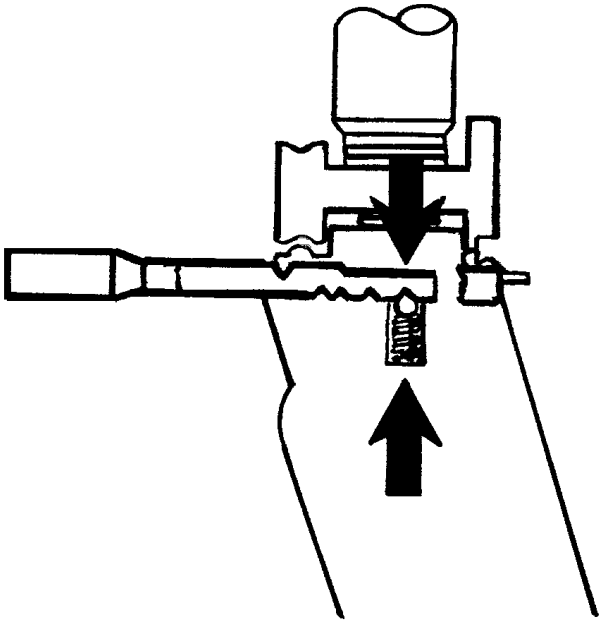


BLACK HORSESHOE SHORT TIP STOP

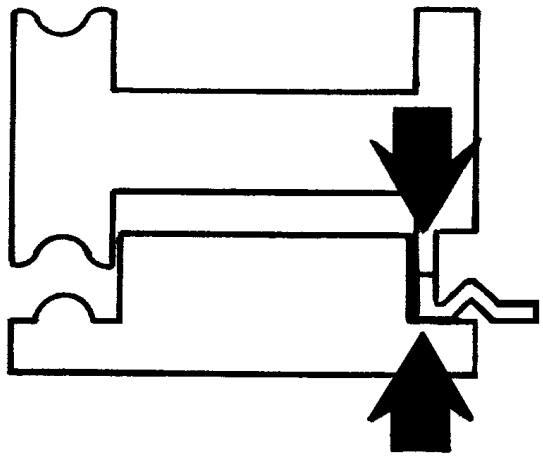
GAUGING USING JAW B.

(Example: Best Card No. C3)

Key is gauged from bottom stop, not tip.
(Note: Use black tip gauge, NOT red.)



Gauge pushed inward to first groove position.



Note special holding on key milling using jaw “B” side.
(Key must lay flat against back ledge of bottom jaw as shown.)

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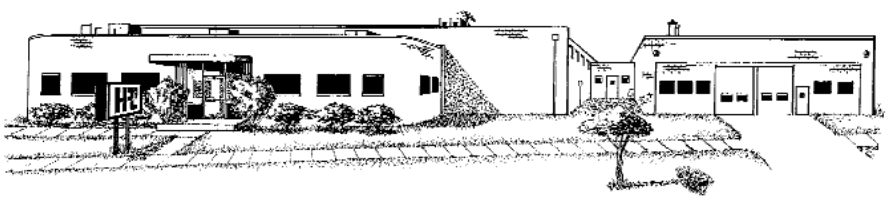
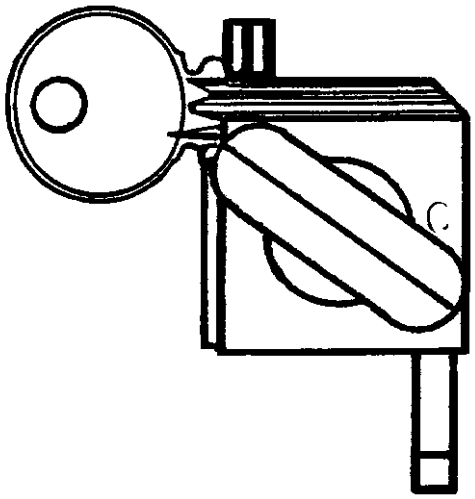


3.8 Medeco® Jaw C



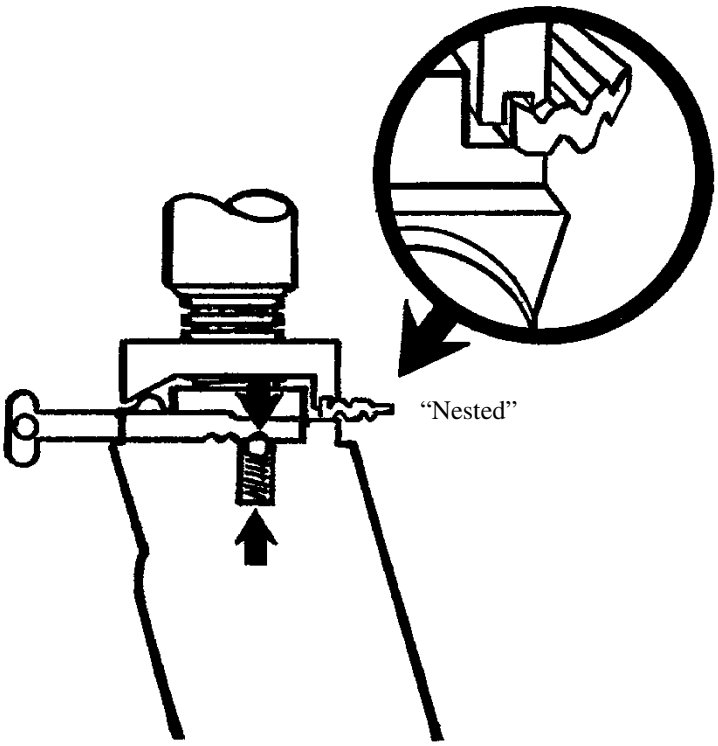
MEDECO® - STANDARD COMMERCIAL

USING JAW C. (OPTIONAL EQUIPMENT)

(Example: Medeco® Card No. C36)

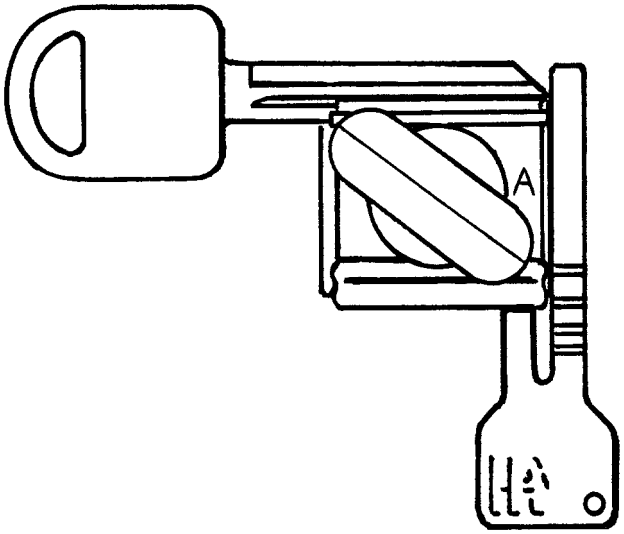
*Medeco® is a registered trademark of Medeco Security Locks, Inc.

Key shoulder touches left hand edge of shoulder gauge. Flip gauge down before turning on motor.



Jaw and grooves "nest" into each other. Key vise tip gauge is pulled back to rear. Open jaw "C" only enough to slide key into position. Be sure key groove and jaw milling mate before tightening wing nut.

3.9 Black Horseshoe Tip Stop (Full End)



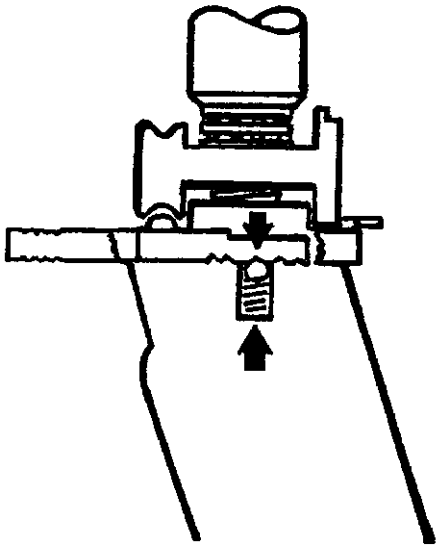
BLACK HORSESHOE FULL END TIP STOP

GAUGING USING JAW A OR B.

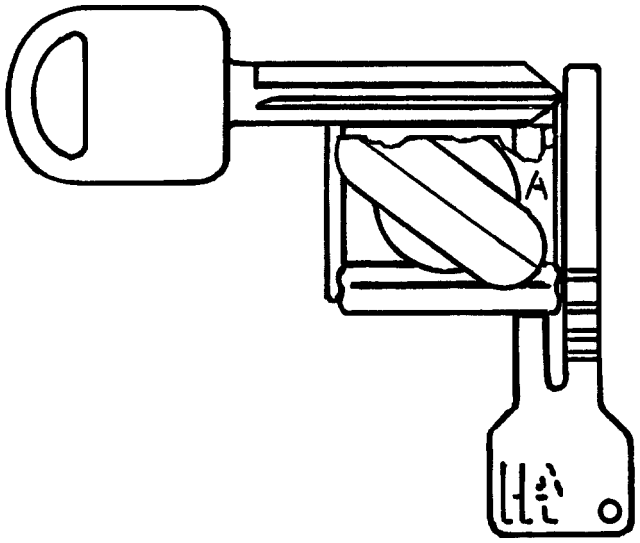
(Example: GM Modular 94+, Card No. CF215)

Key is gauged from tip as shown.

(Note: Black tip gauge NOT Red.)



Detent in second groove position.



Gauge against tip stop. Be sure key lies flat against ledge before tightening wing nut.

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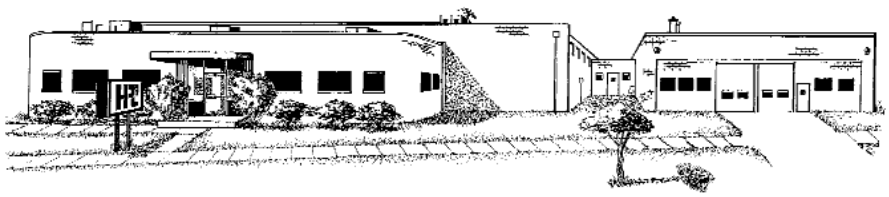
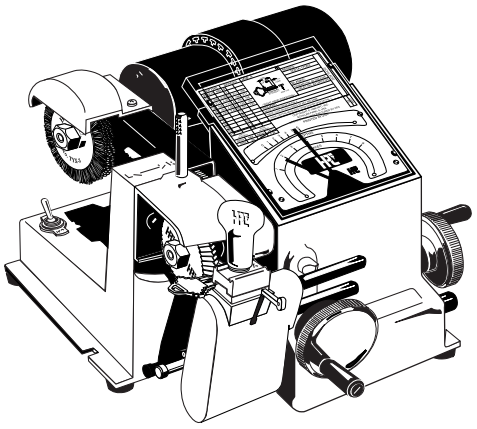
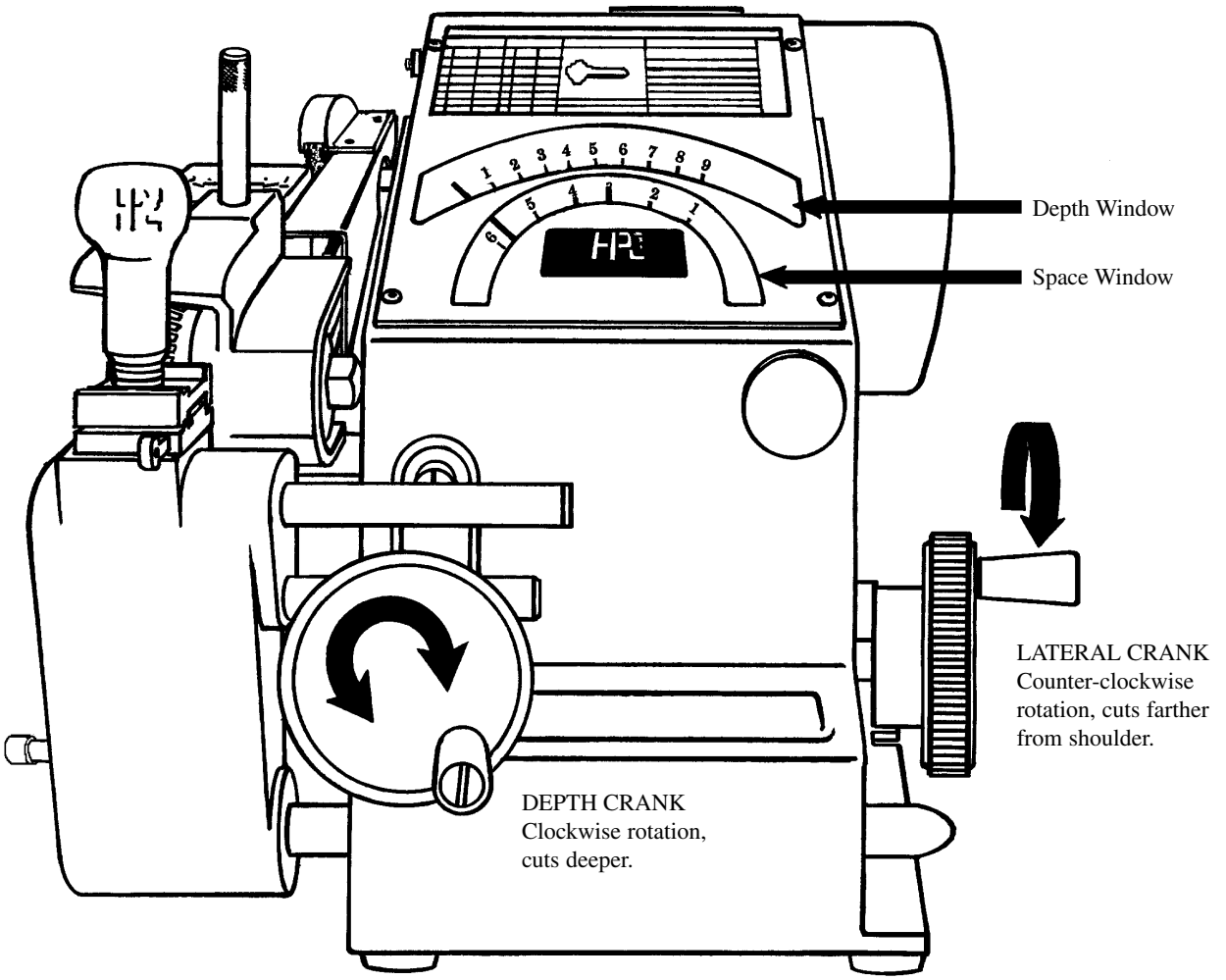


4.0
DEPTH AND SPACE CRANK CONTROLS



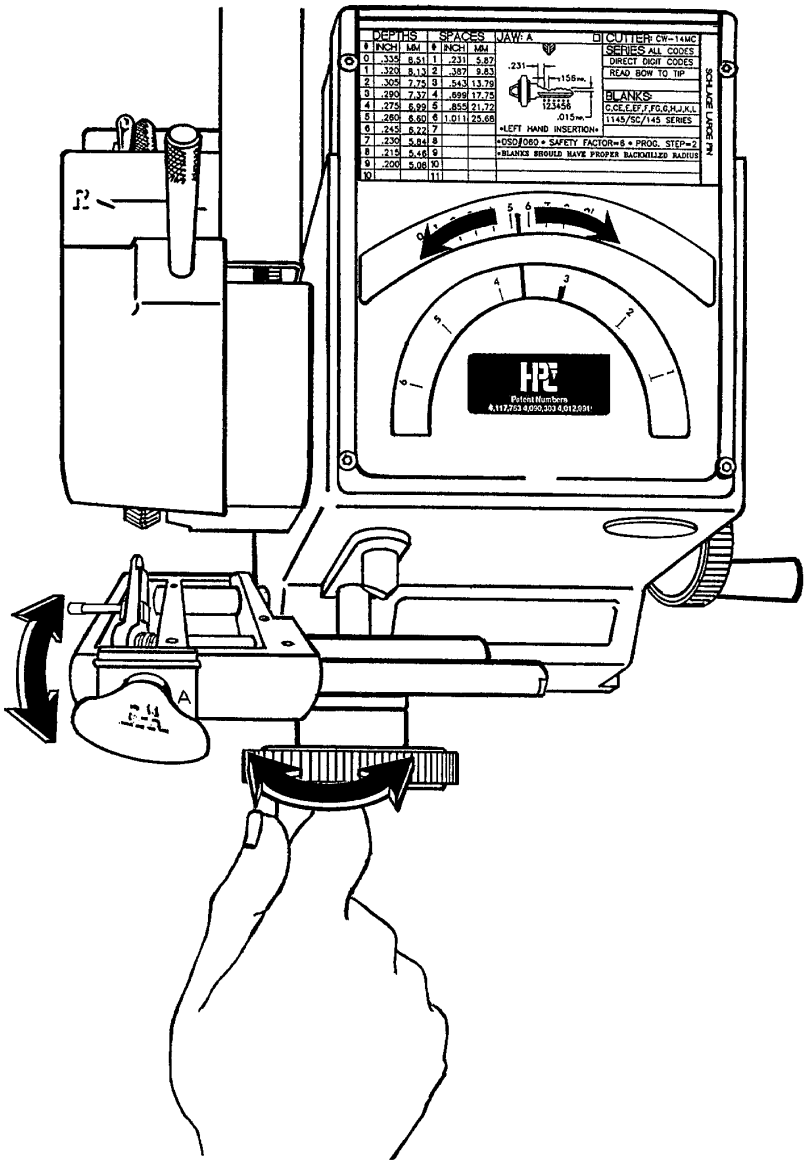


DEPTH CRANK

THE DEPTH OF A CUT is controlled by rotating the No. CM-1026X Depth Crank, located at the front of the machine. Clockwise rotation, as indicated above, moves the key inward towards the cutter. Counter-Clockwise rotation moves the key outward and away from the cutter.

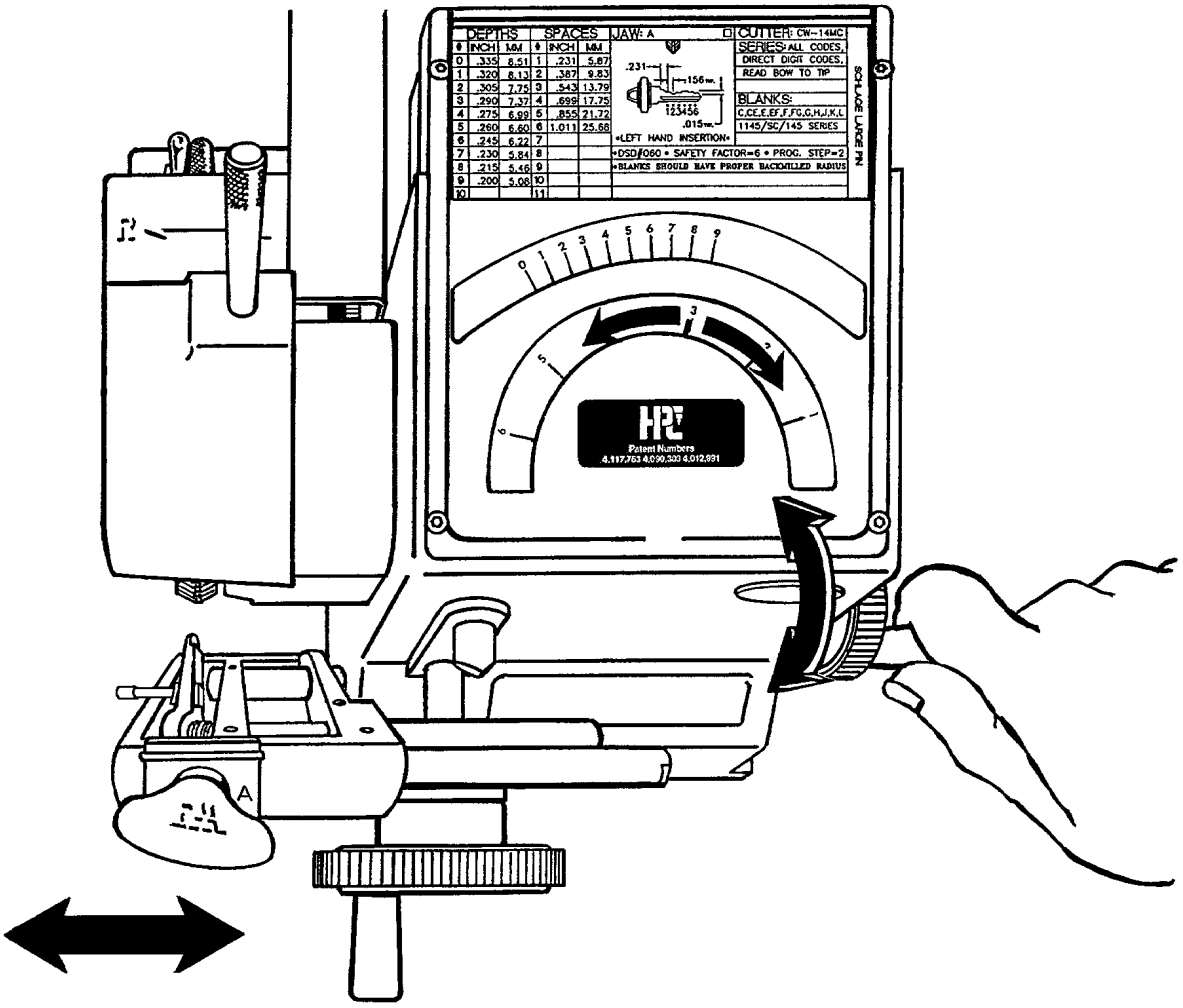
LATERAL CRANK

THE LATERAL MOVEMENT of the key is controlled by rotating the No. CM-1044X lateral crank located on the right hand side of the machine. Counter-clockwise rotation as indicated in the illustration, moves the key to the left and causes the cutter to cut farther from the shoulder.

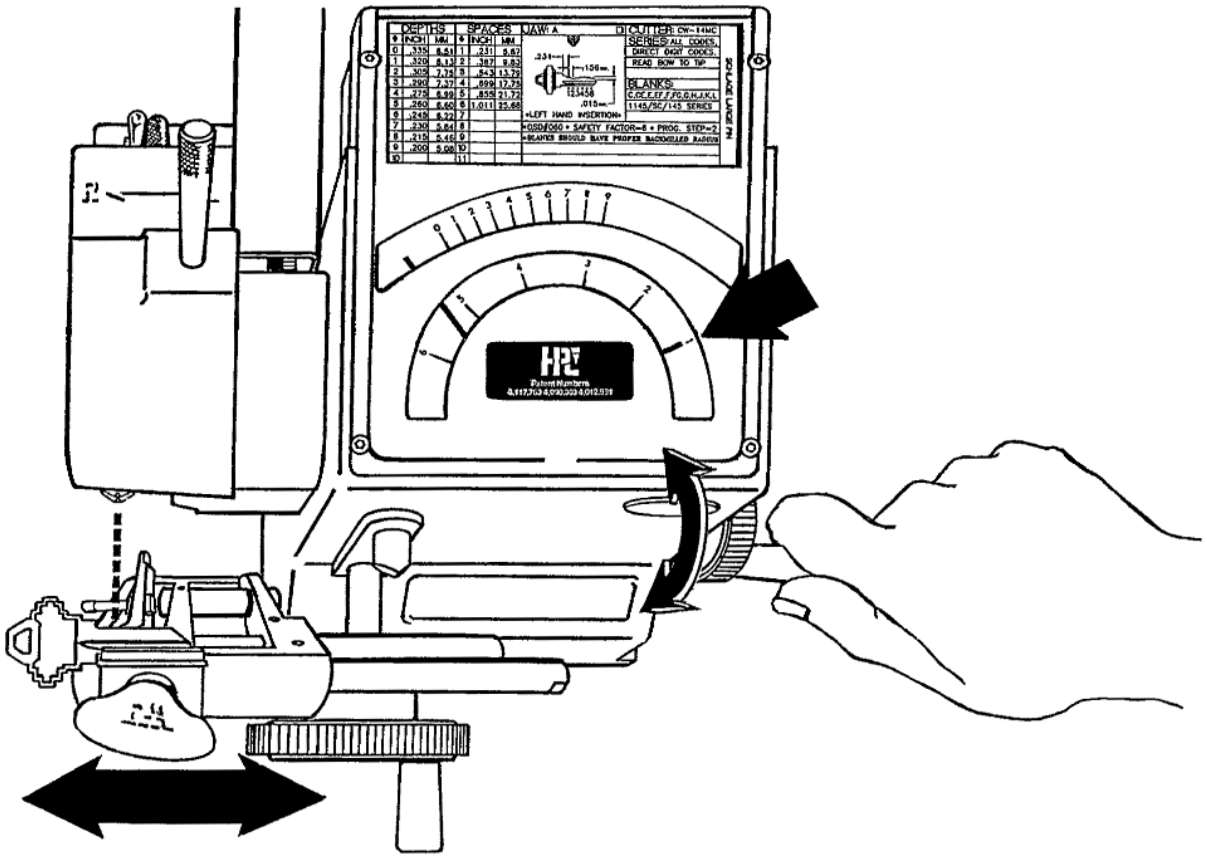


Rotating the depth crank clockwise, the pivot arm will move inward towards the cutter, rotating counter-clockwise will move it outward away from the cutter.

The depth indicator needle sweeps across the face of the arc, from left to right as the knob is advanced. With this indicator needle centered over the mark on the card, the key is cut to the corresponding depth.



Rotating the lateral crank clockwise moves the pivot arm to the right, and rotating counter-clockwise moves it to the left.



The key in the pivot arm is correctly positioned for the first space when the space indicator needle is centered over the numeral 1 in the space indicator arc.

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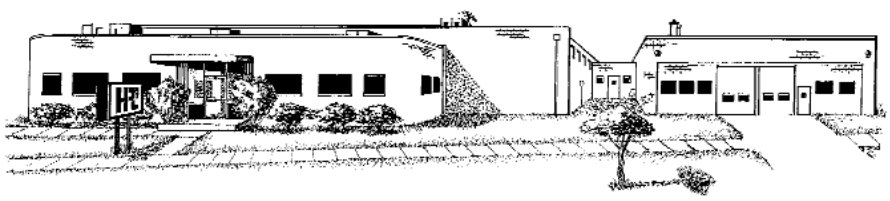
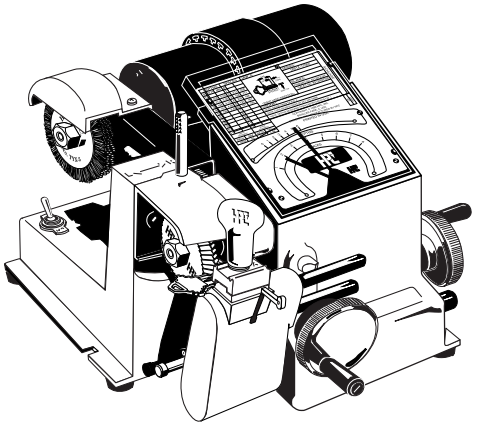
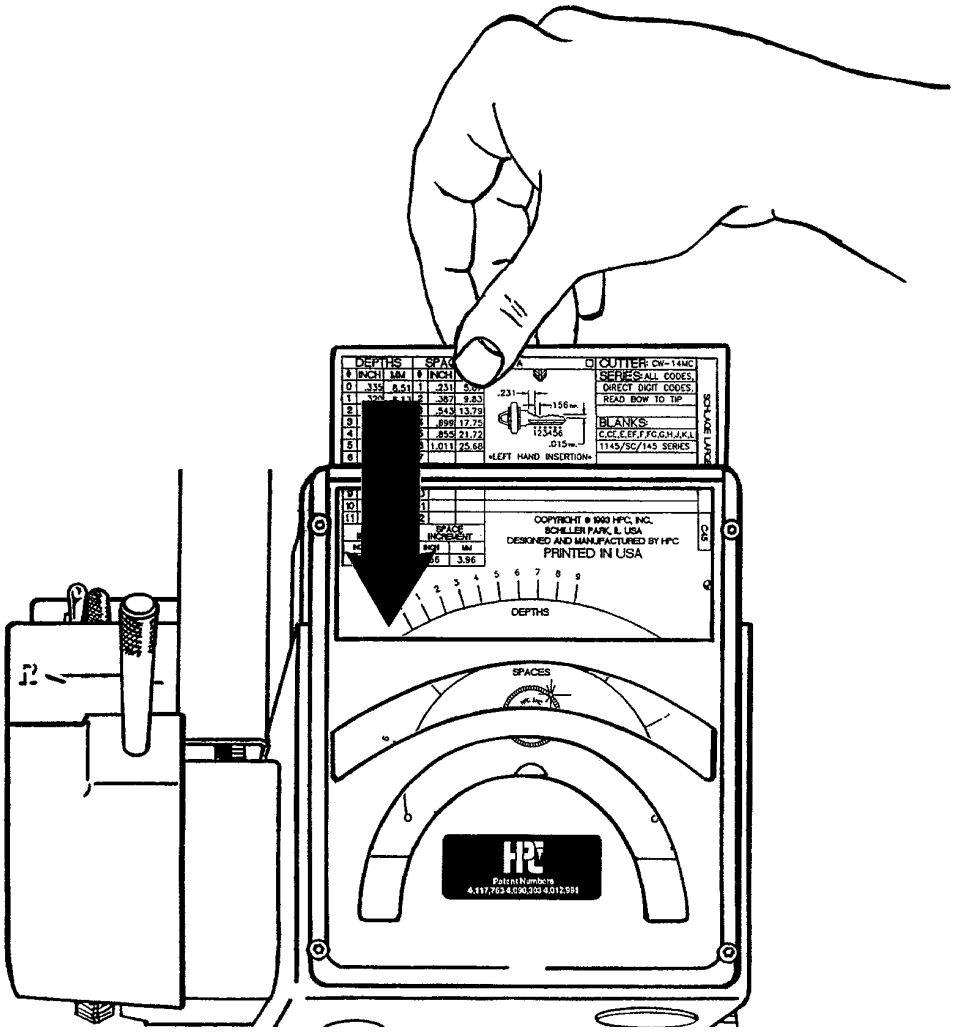
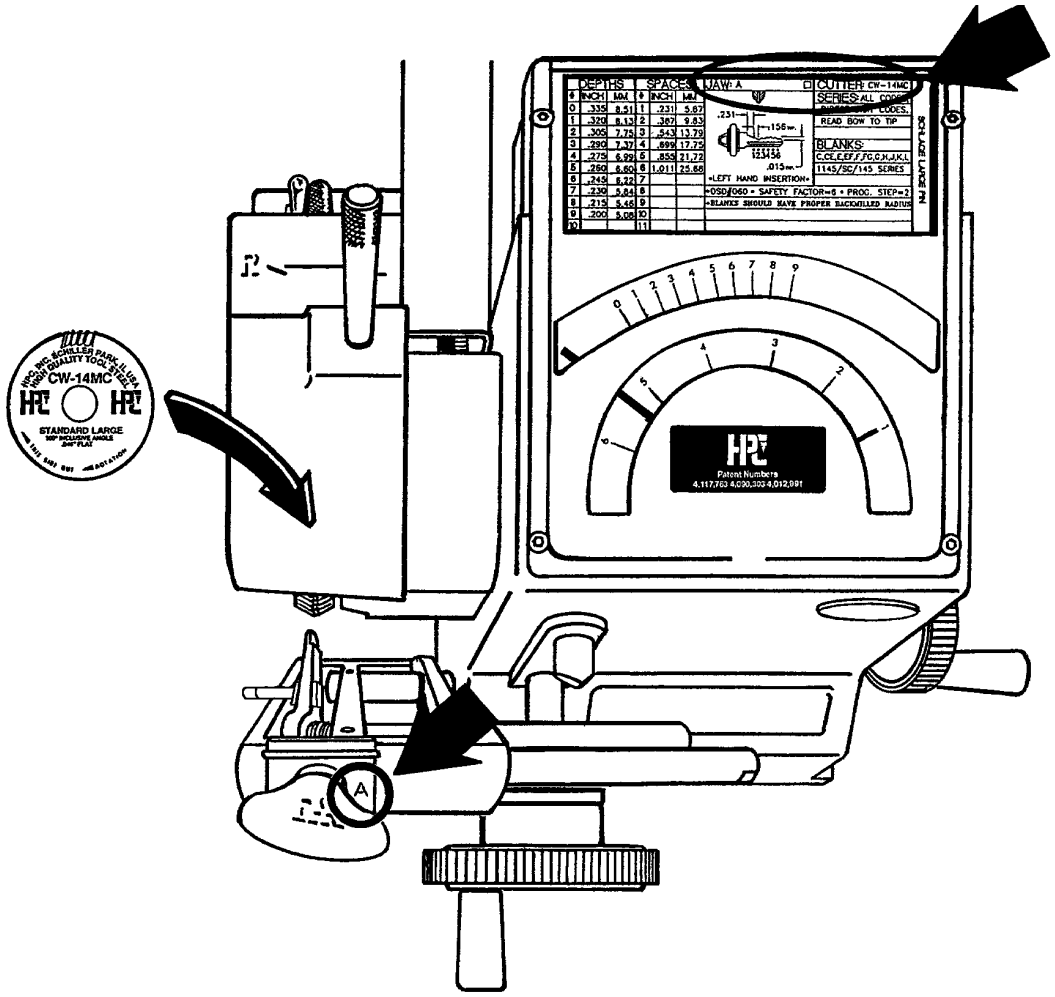


5.0
CUTTING THE KEY

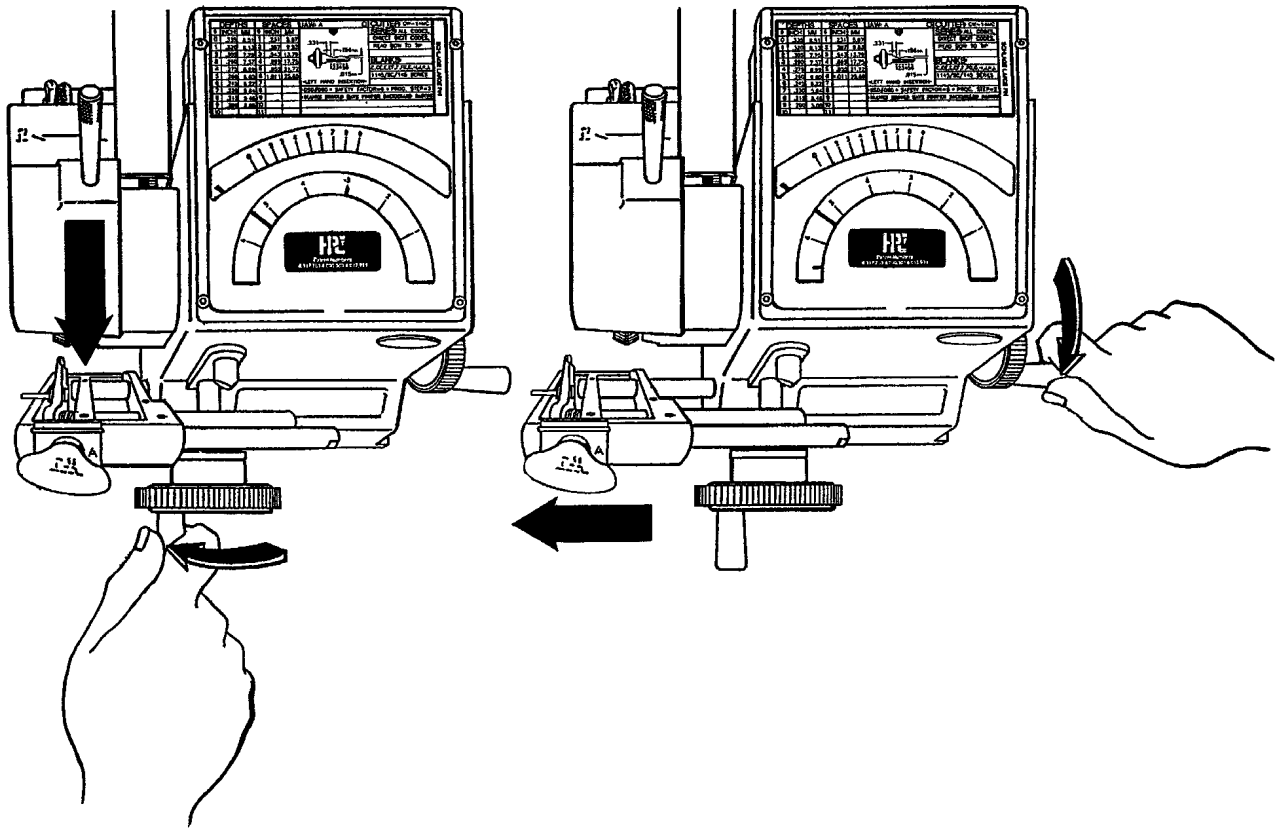




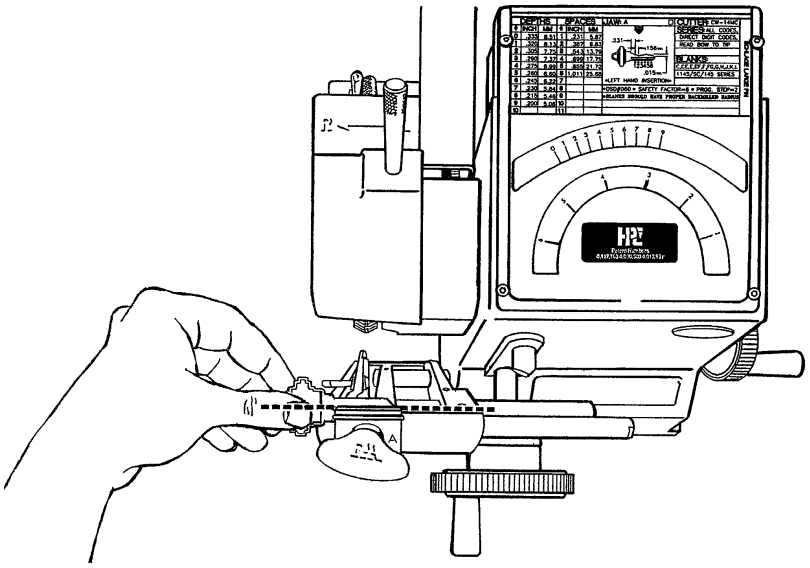
Select the correct Code Card and insert it beneath the lens as shown above.

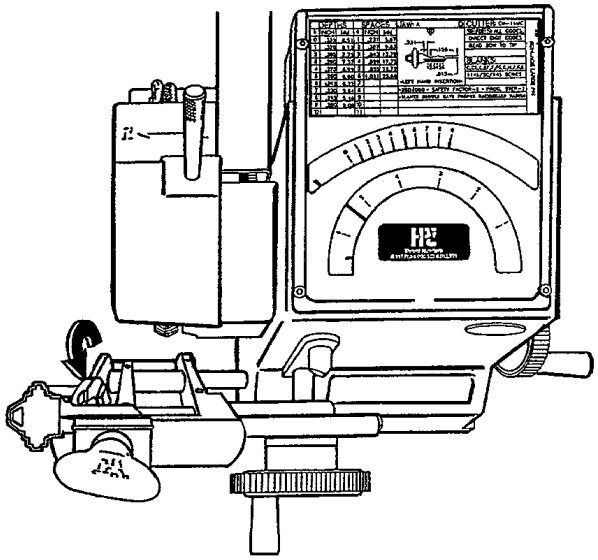


Change the cutter and jaw (if necessary) to those indicated on the Code Card.

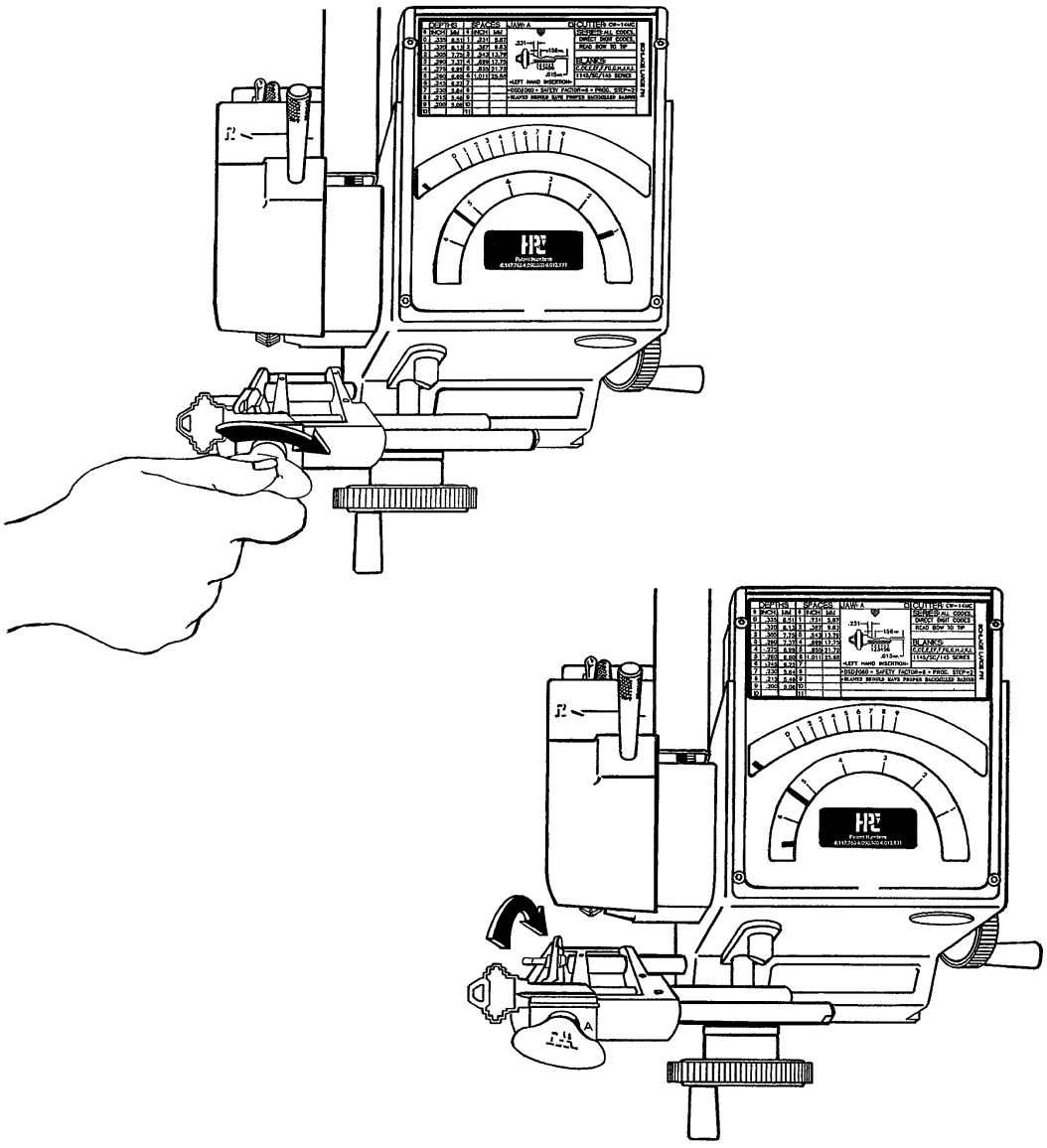


For maximum clearance, and easy accessibility when inserting the key blank, rotate both of the crank knobs counter-clockwise.

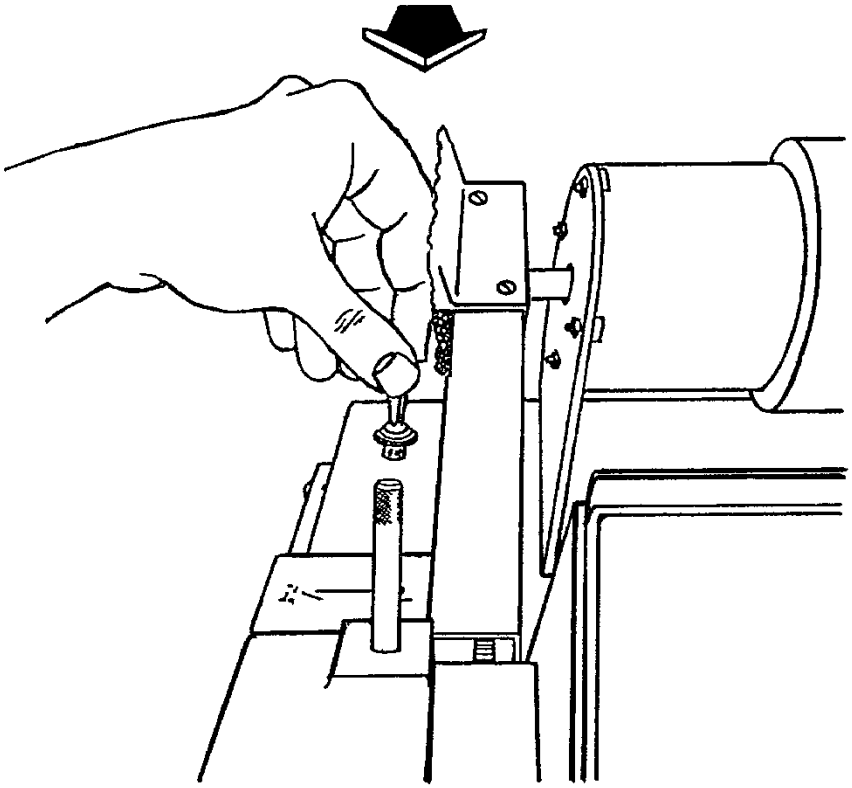




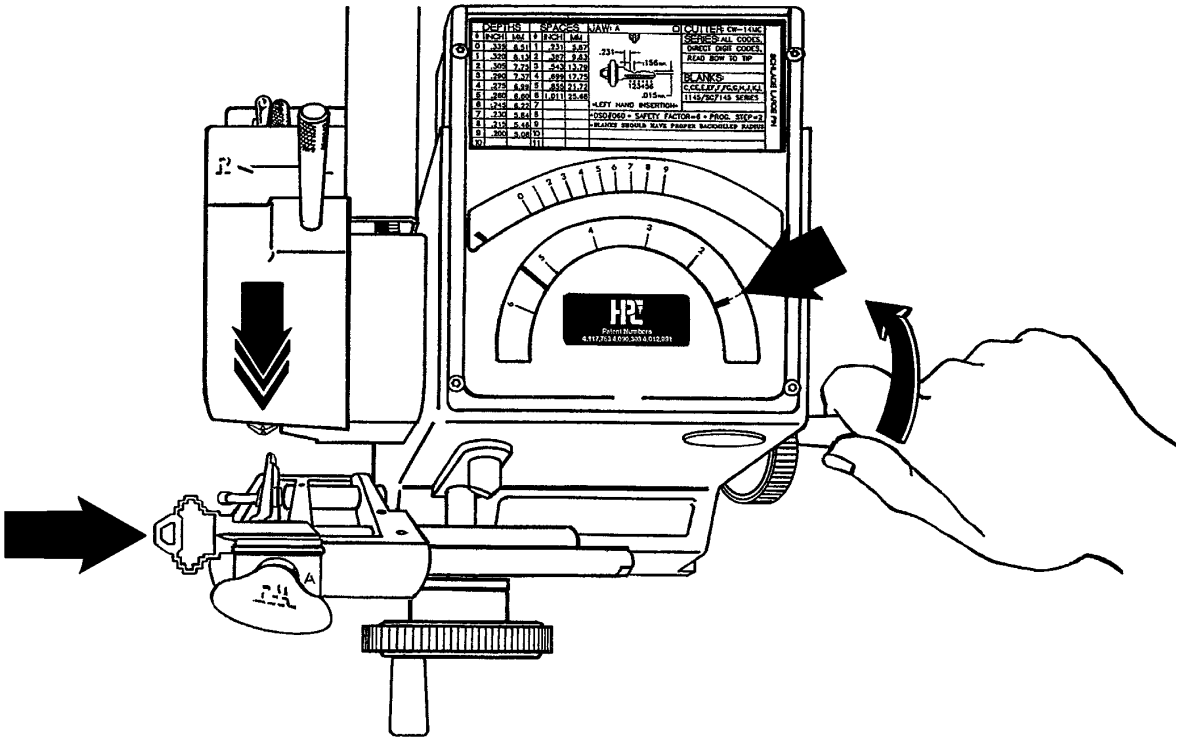
Gauge the key...



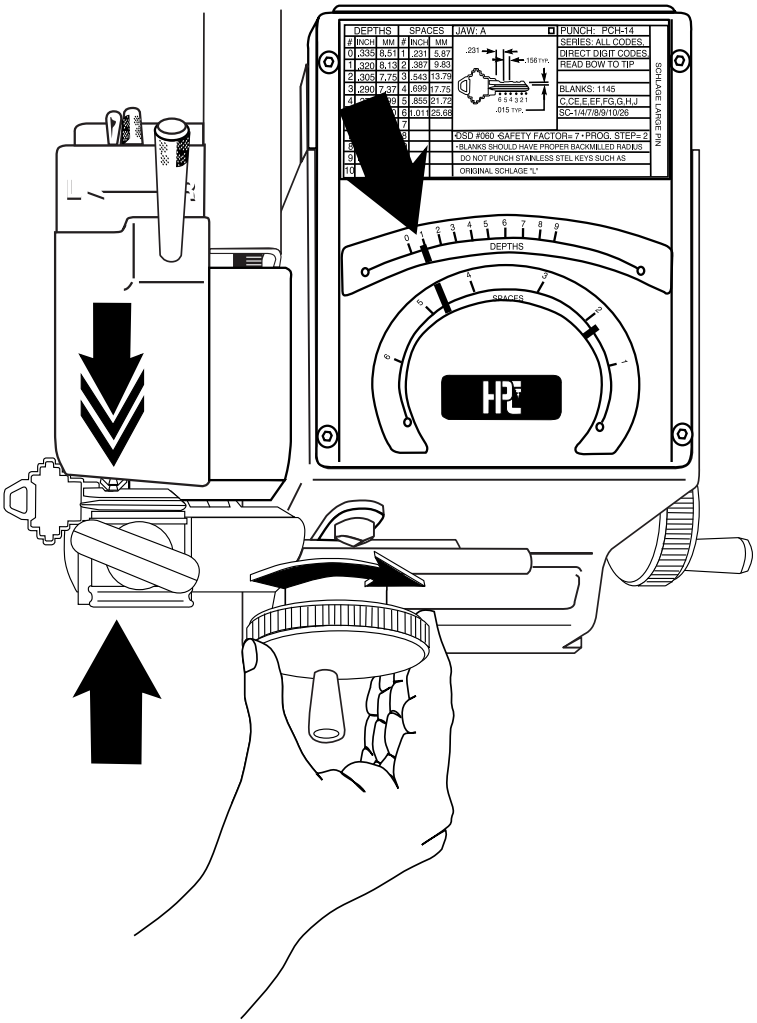
...and tighten the wing nut when the key is level. Then flip gauge down before starting to cut.



Turn machine “ON.”

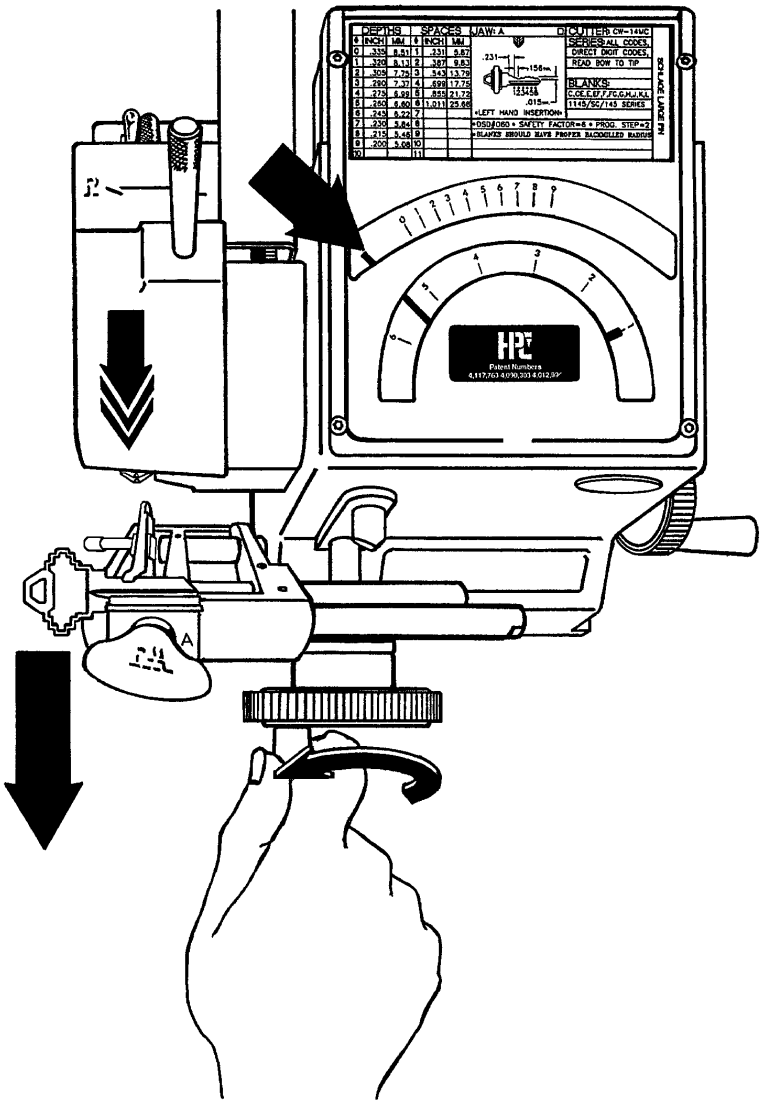


Rotate the lateral crank clockwise until the indicator lines up with the No. 1 space mark in the space window as indicated above.

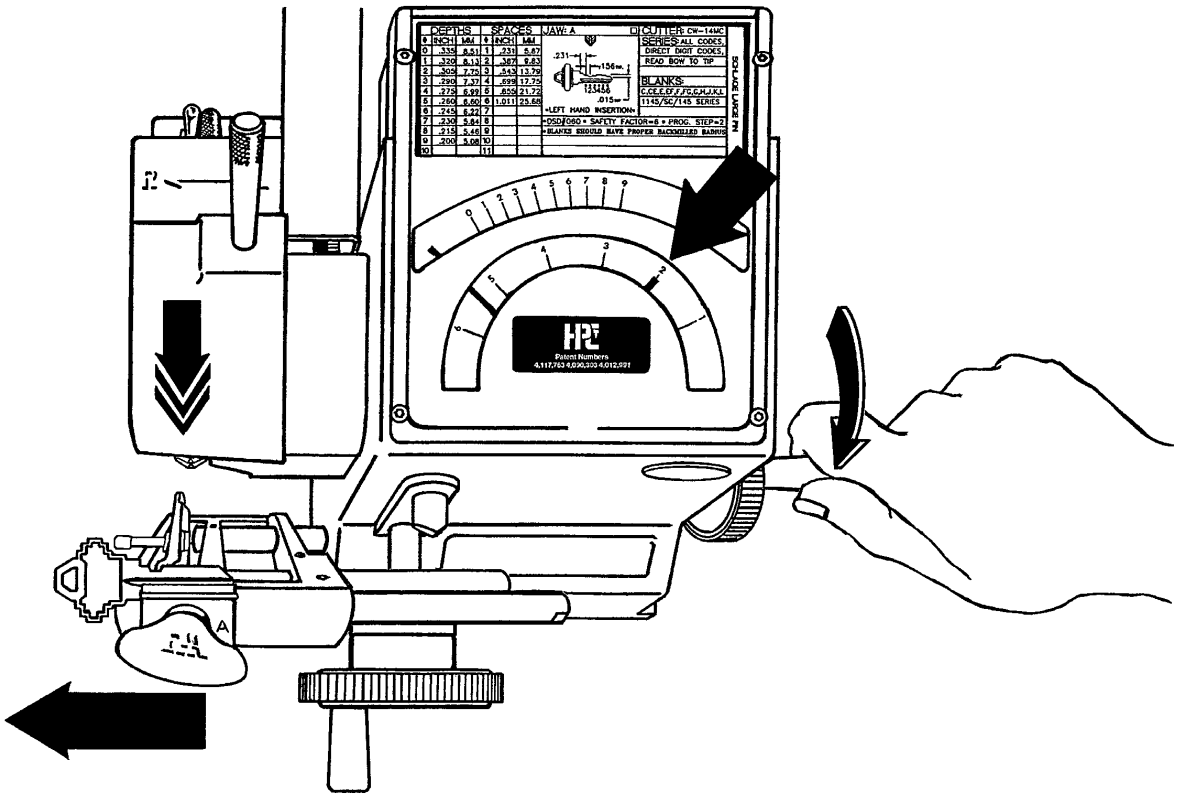


Slowly rotate the depth crank clockwise until the depth indicator is centered over the depth mark you wish to cut as shown in the upper depth window.

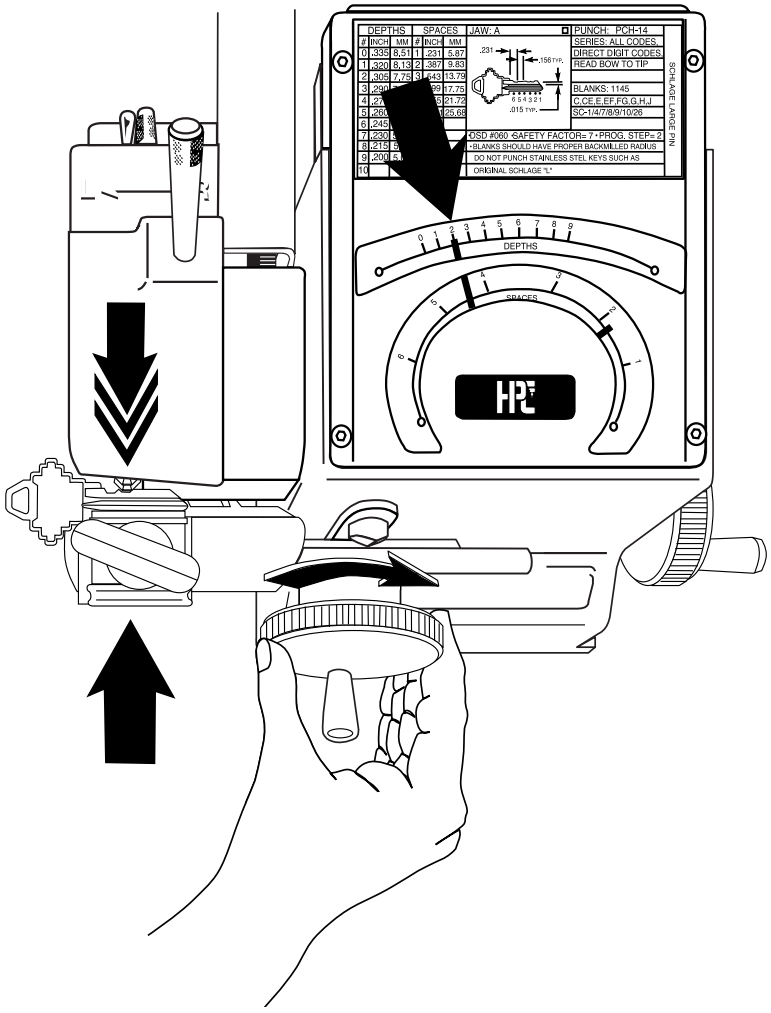
Do <u>NOT</u> pass the mark!



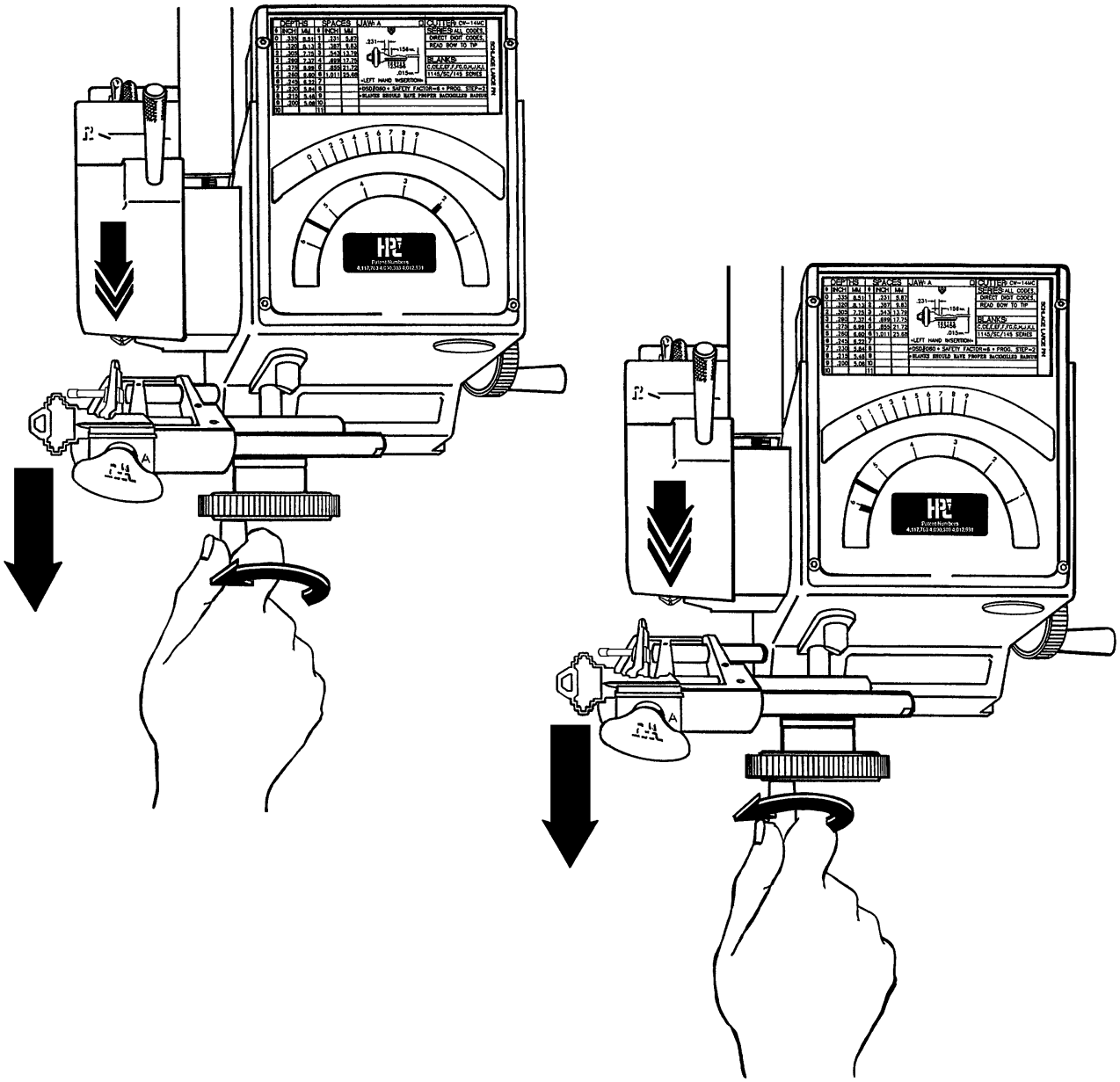
Now rotate the depth crank counter-clockwise (outward) until the spinning cutter is clear of the key blank.



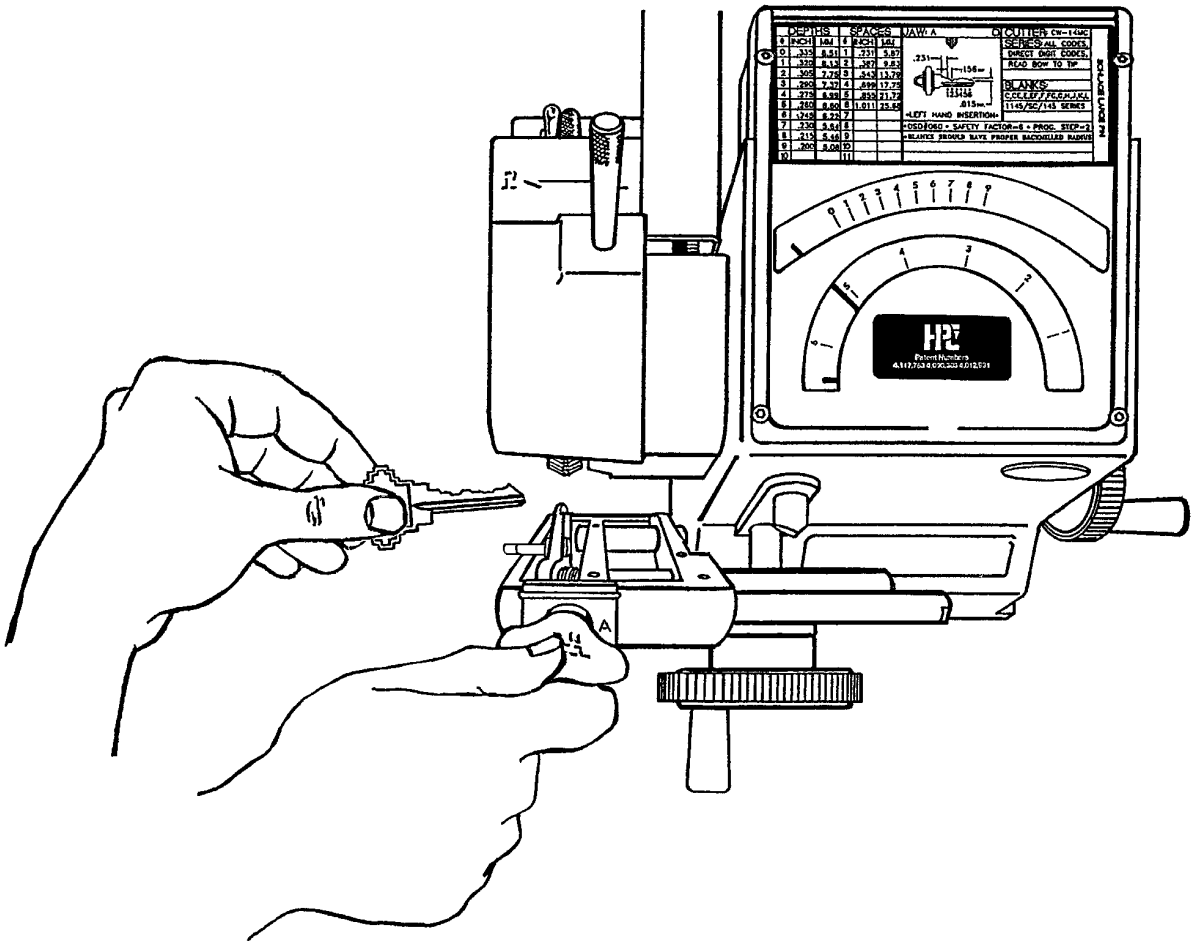
Rotate the lateral crank to the second space indicator.



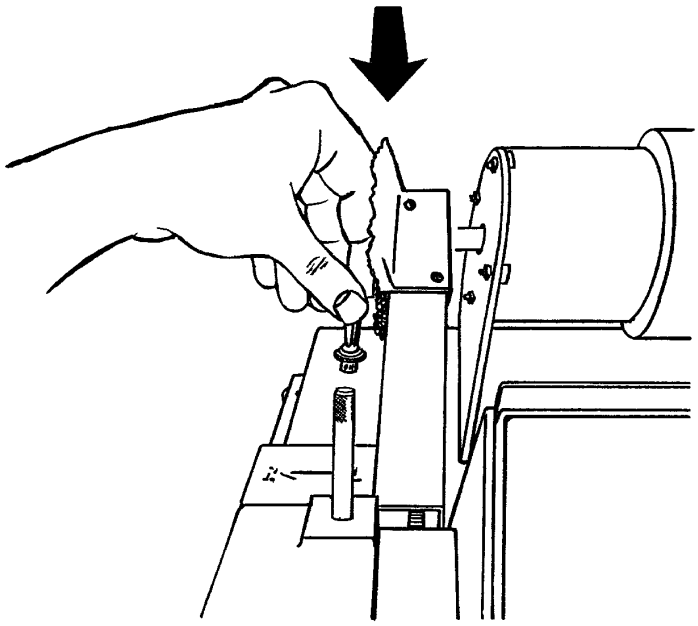
Slowly rotate the depth crank clockwise until the depth indicator is centered once more over the depth you wish to cut in this space position.

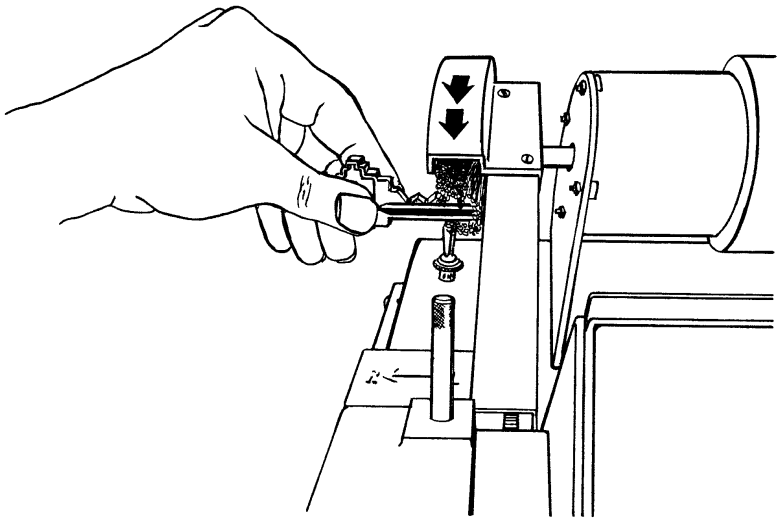


Continue the correct space and depth movements until all cuts are made from the head to the tip of the key.

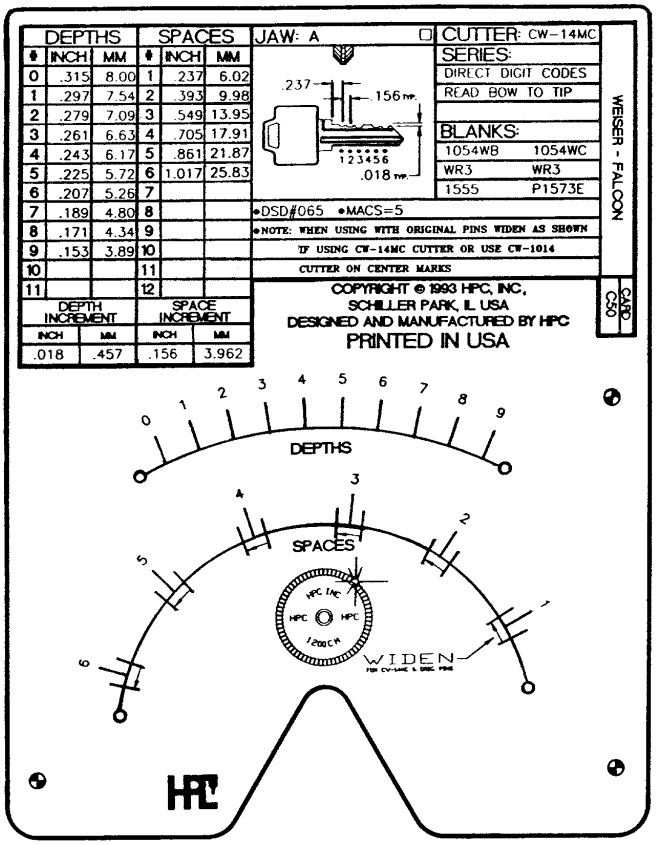


Upon completion of the last cut rotate both of the cranks counter-clockwise for maximum clearance and easy accessibility to the cut key. Then turn off machine and remove key.





Turn motor back on to deburr key.

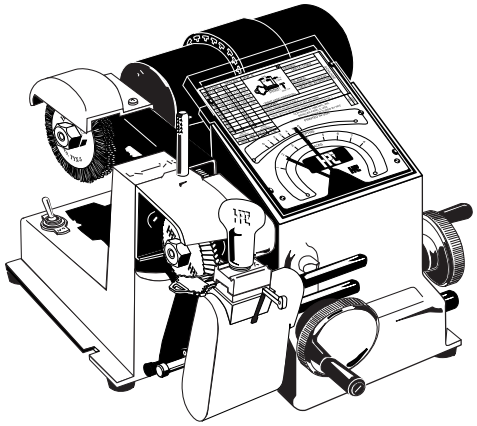


The following is only for keys that require widening as indicated on the code card.

When widening, start at the first small mark for each space and, while holding the depth crank, turn the lateral crank counter-clockwise from the first small widening mark through the center mark and stopping at the second small widening mark.

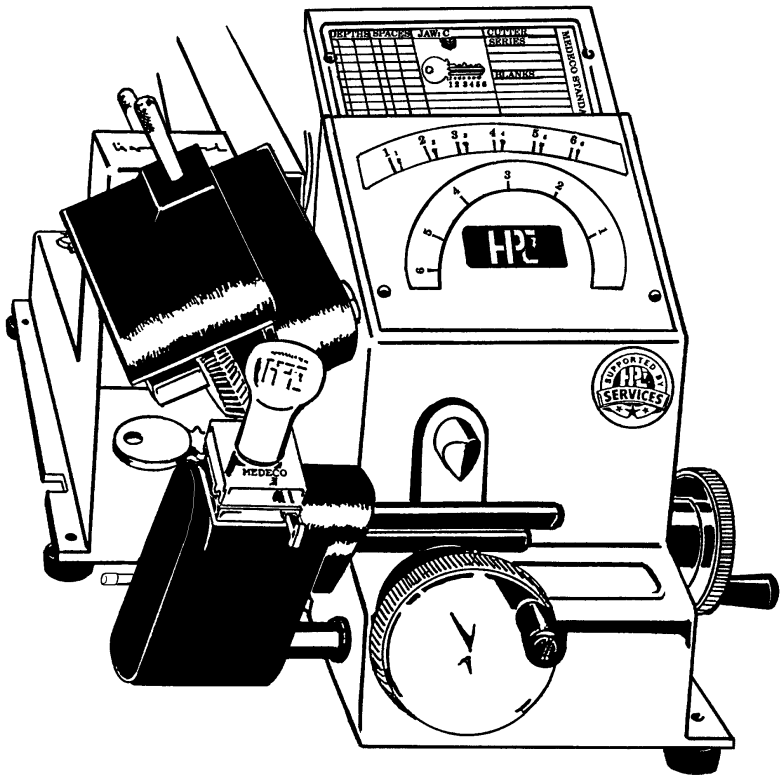
Do <u>NOT</u> move back clockwise!

6.0
ANGLE CUT KEYS



6.1 Use of Swivel Cutter Head

CUTTING KEYS FOR MEDECO®
STANDARD COMMERCIAL - CODE CARD NO. C36
BIAXIAL - CODE CARD No.'s CSP3 and CSP4



ONE OF THE UNIQUE FEATURES OF THIS MACHINE - is the ability to make cuts on an angle. By pulling outward on the spring loaded angle index pin the cutter head can be swiveled left or right. Be sure the index pin is re-locked into the cutter head before operating machine.

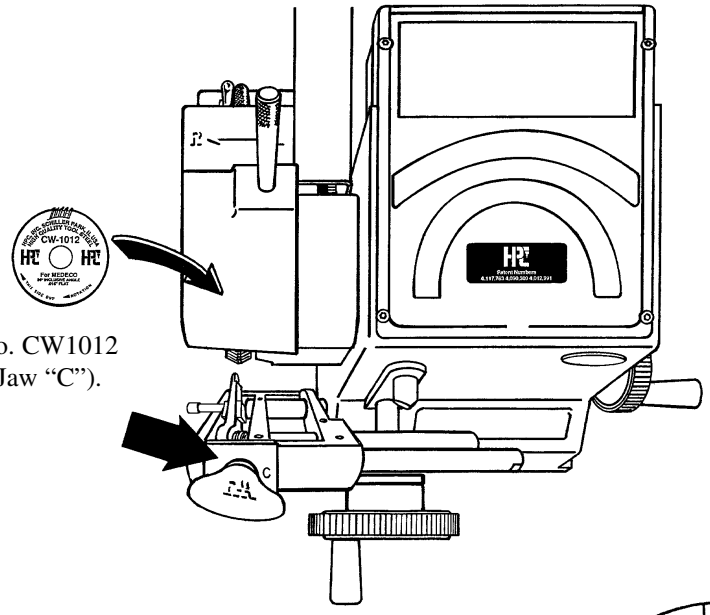
•REQUIRED OPTIONAL EQUIPMENT

An optional cutter and Jaw "C" are required to cut keys for commercial level Medeco®. This cutter Part No. CW-1012 and No. MJ-1 "Jaw C" may be added at a later date. Both parts are readily available from your HPC distributor.

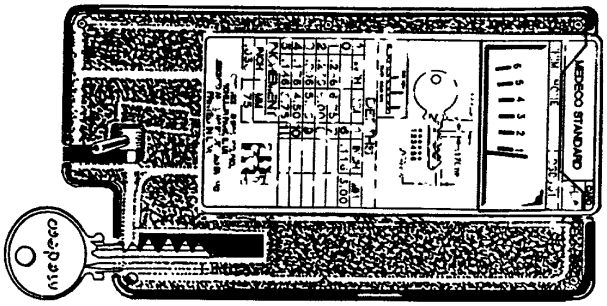
Biaxial keys only require the CW-1012 cutter, not the MJ-1 "Jaw C".

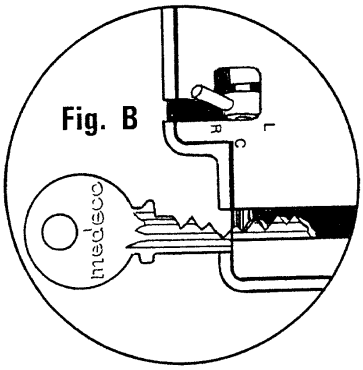
*Medeco® is a registered trademark of Medeco Security Locks, Inc.

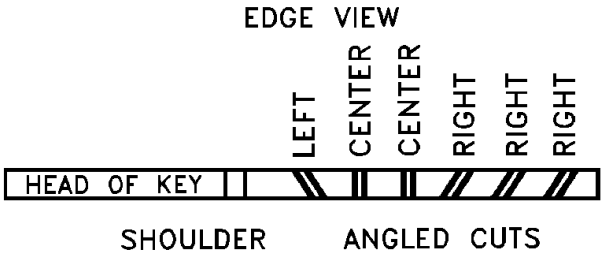
6.1 Decoding and Cutting



Install the No. CW1012
and MJ-1 (Jaw "C").

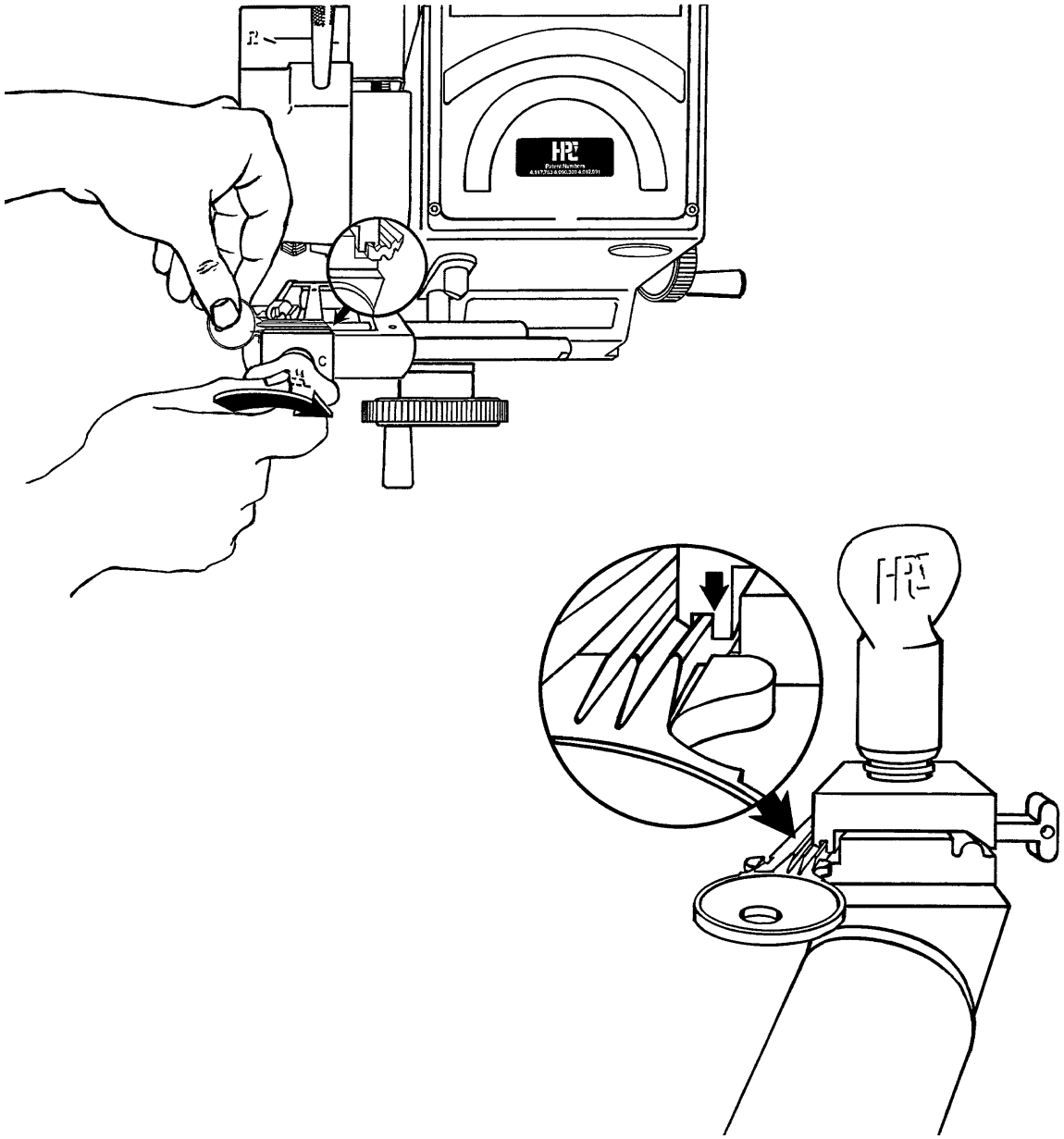




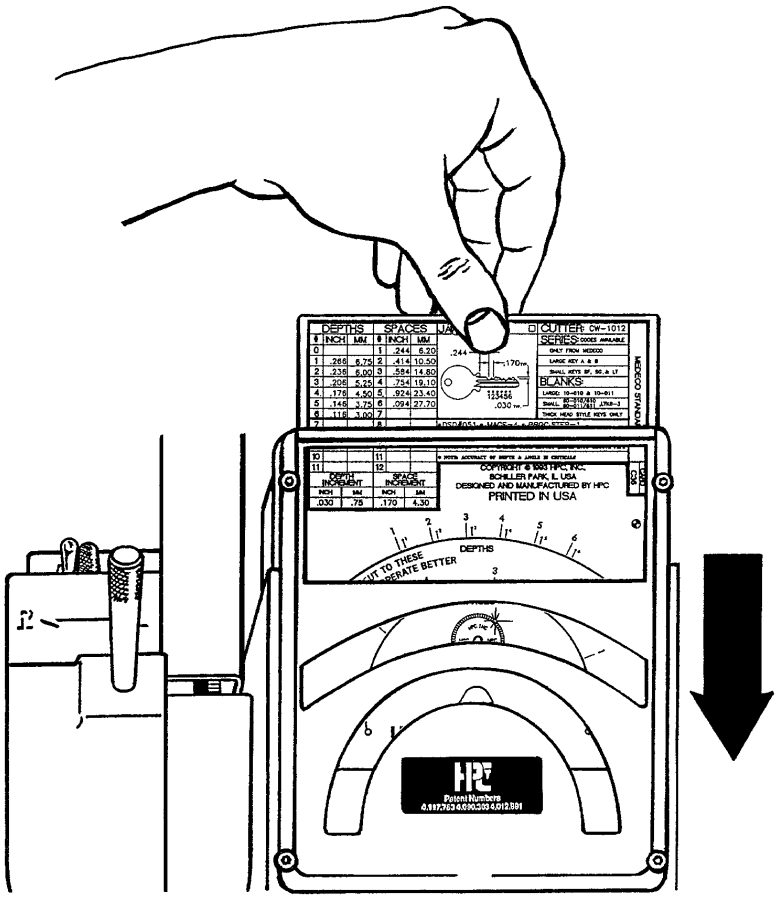


The depths and angles must be decoded prior to cutting the key. Depths can be measured with a knife-edge caliper, a key micrometer or with one of the special decoders commercially available. The HPC Pocket Sized Decoder, No. HKD-75 (pictured above), in addition to decoding depths and angles for Medeco® also contains an assortment of cards for other locks. Remember decoding devices are not designed to replace micrometers or calipers.

*Medeco® is a registered trademark of Medeco Security Locks, Inc.



Gauge the key from the shoulder, making sure the key grooving and special jaw milling are nested together.



Insert Code Card No. C36 for Medeco®.

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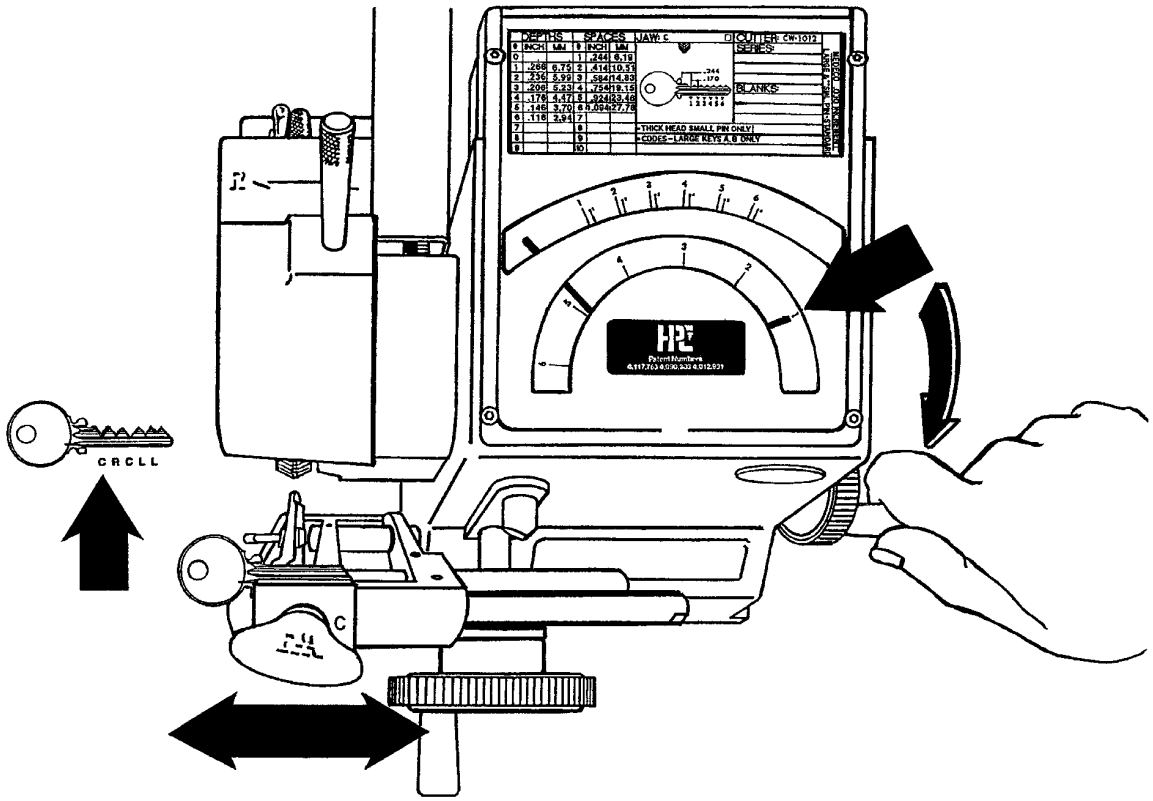
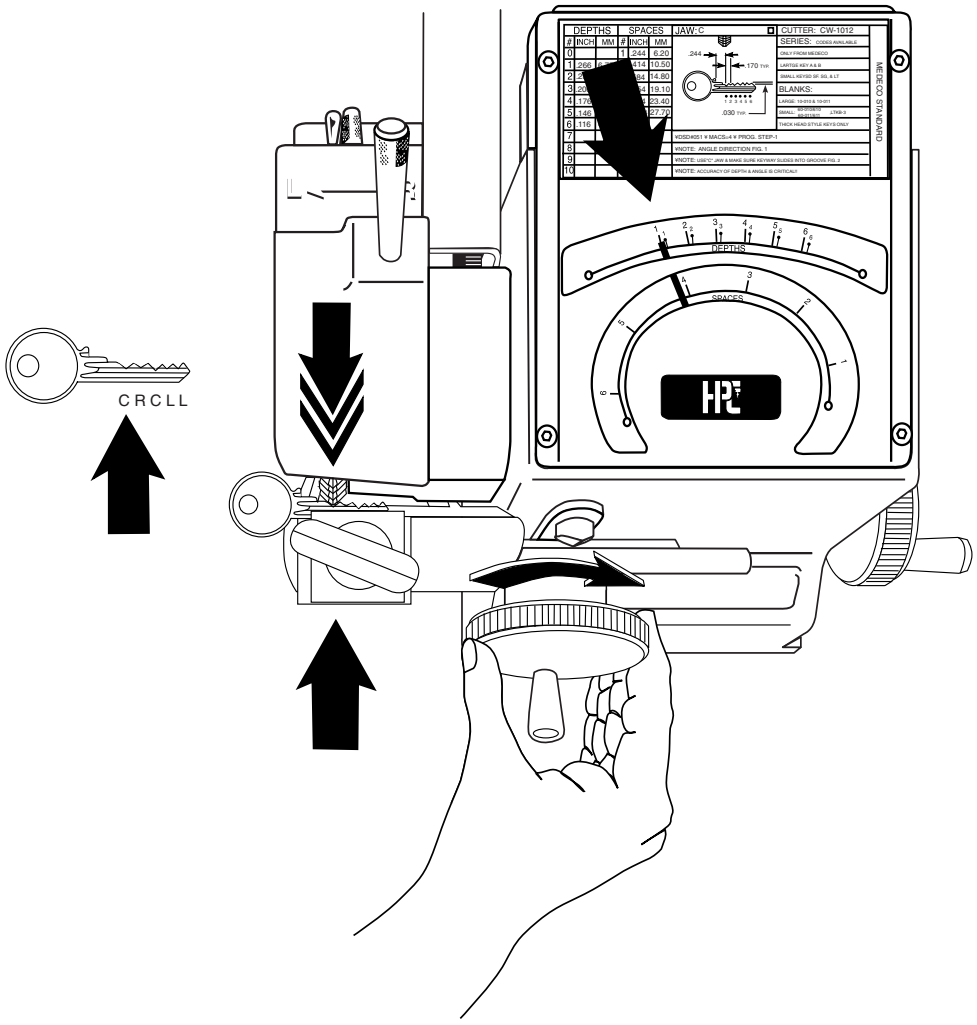
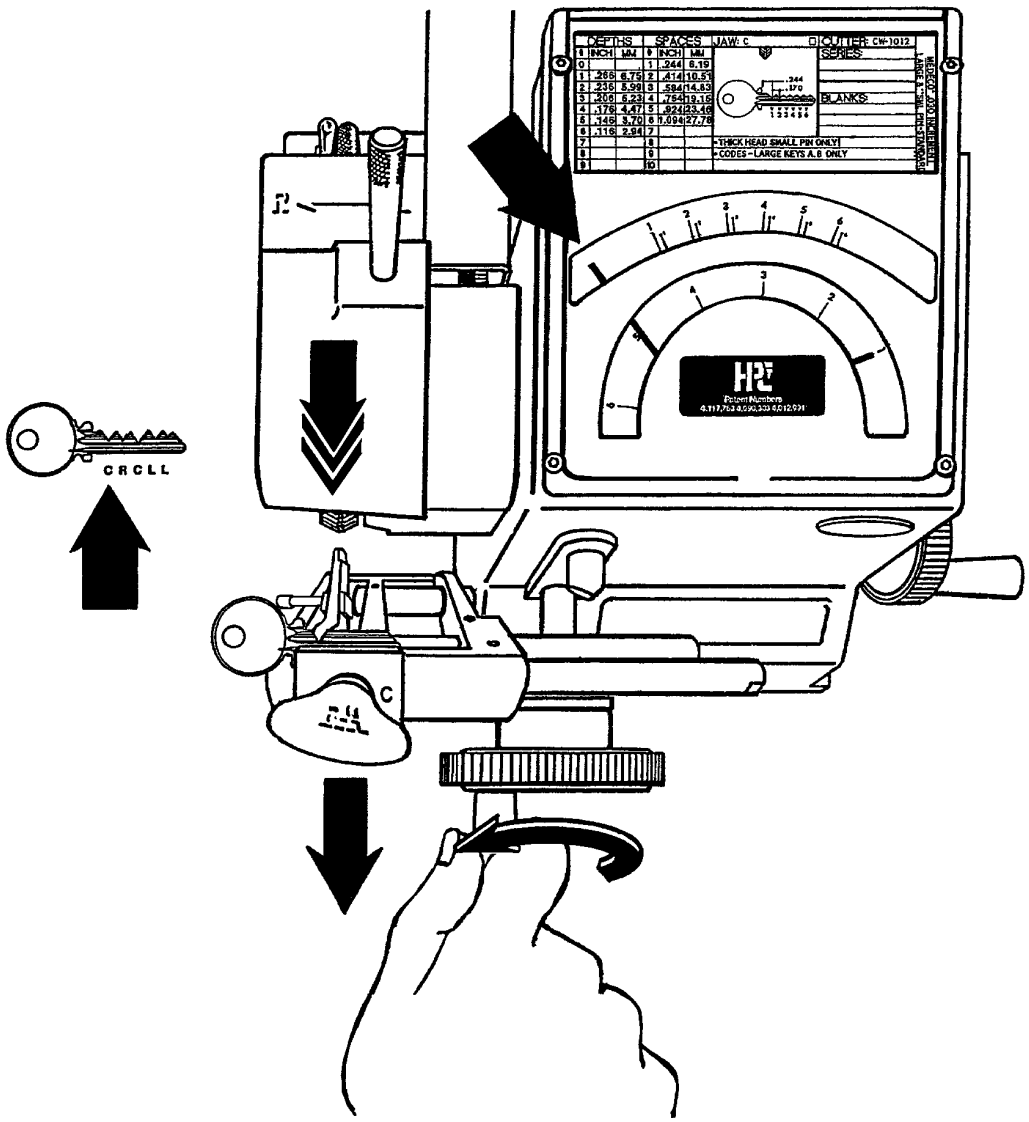


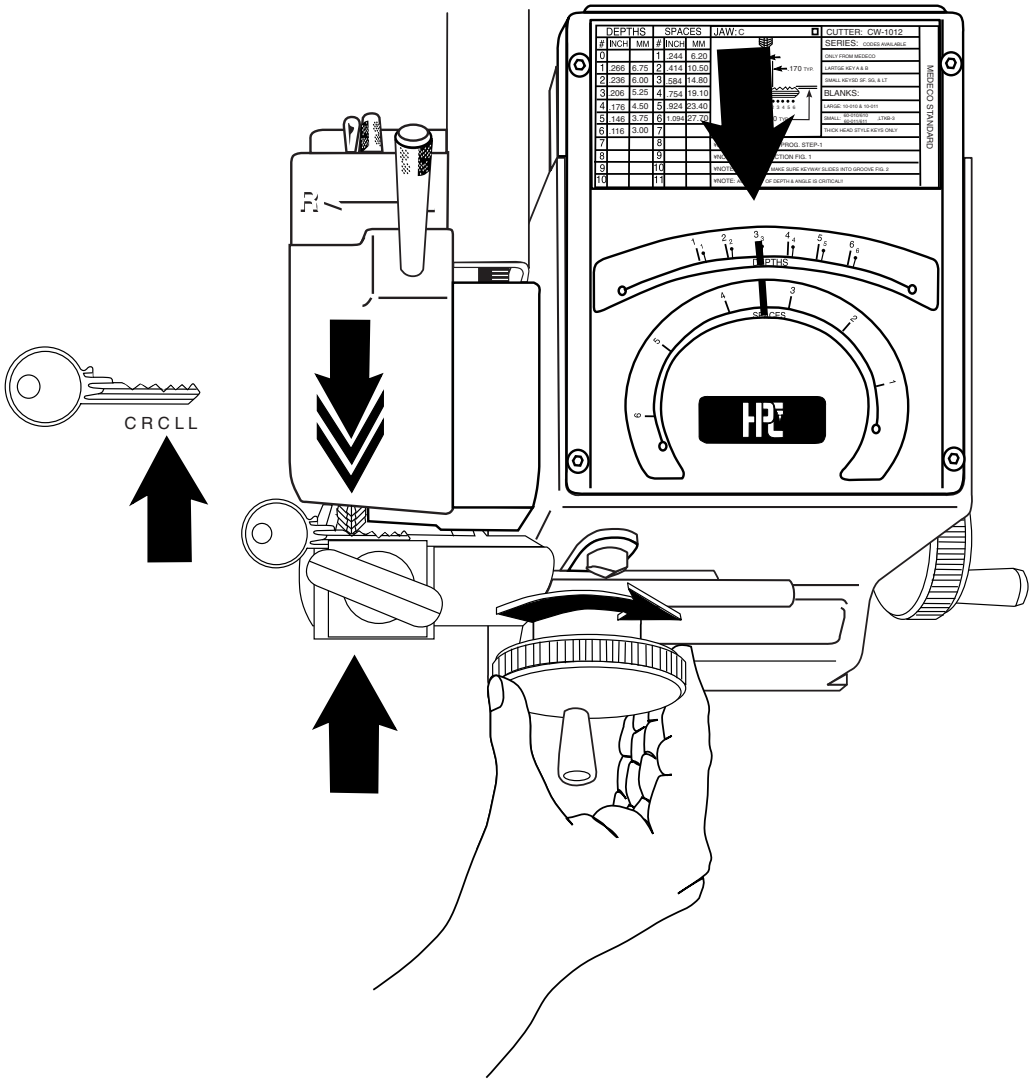
Turn the lateral crank as required to move key into the correct space positions for cuts with center angles. Cutter head is not swiveled for center cuts. Make all center angle cuts first.



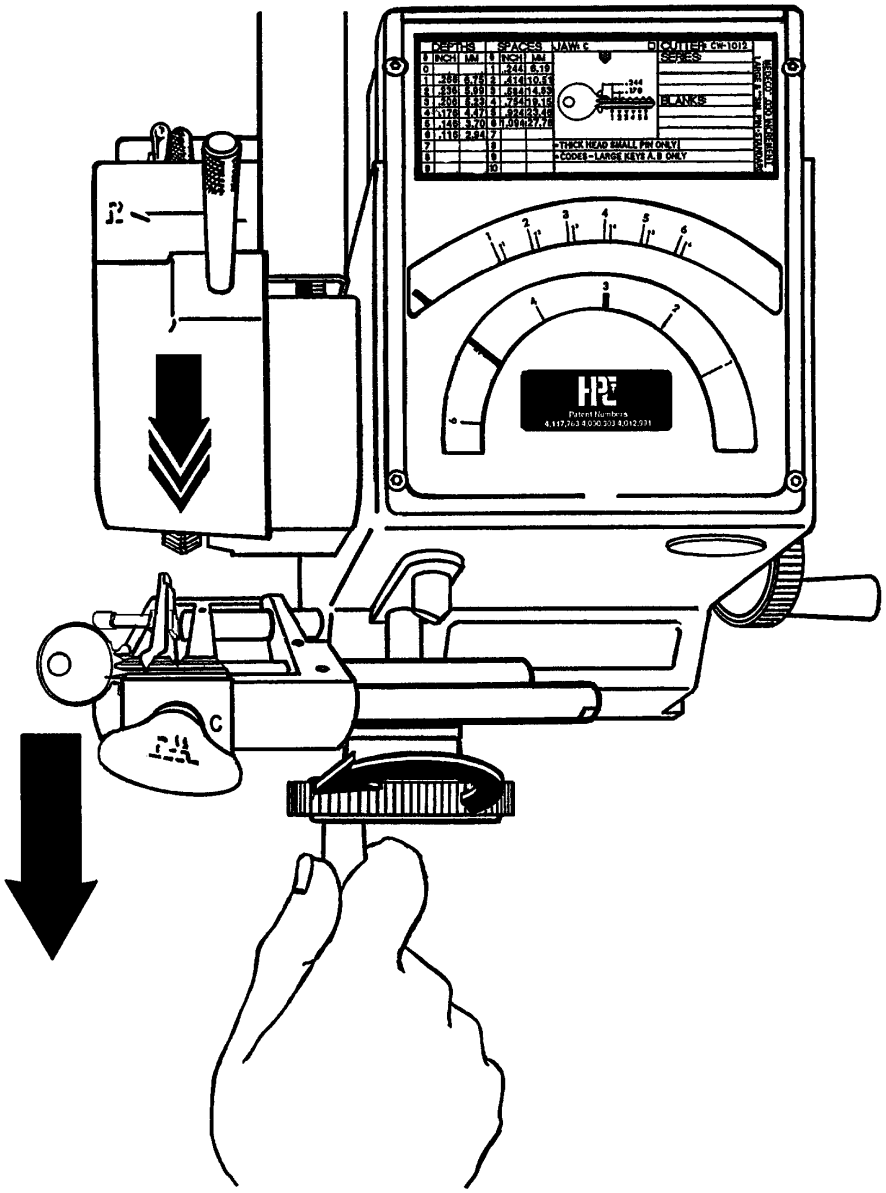
Cut first center cut.


CRCLL
DEPTHS
SPACES
JAW: C
CUTTER: CW-1012
SERIES
BLANKS:
•THICK HEAD SHAFT PIN ONLY!
• CODES - LARGE KEYS A, B ONLY
HPC
Patent Numbers
4,117,753 4,690,333 5,012,931
C

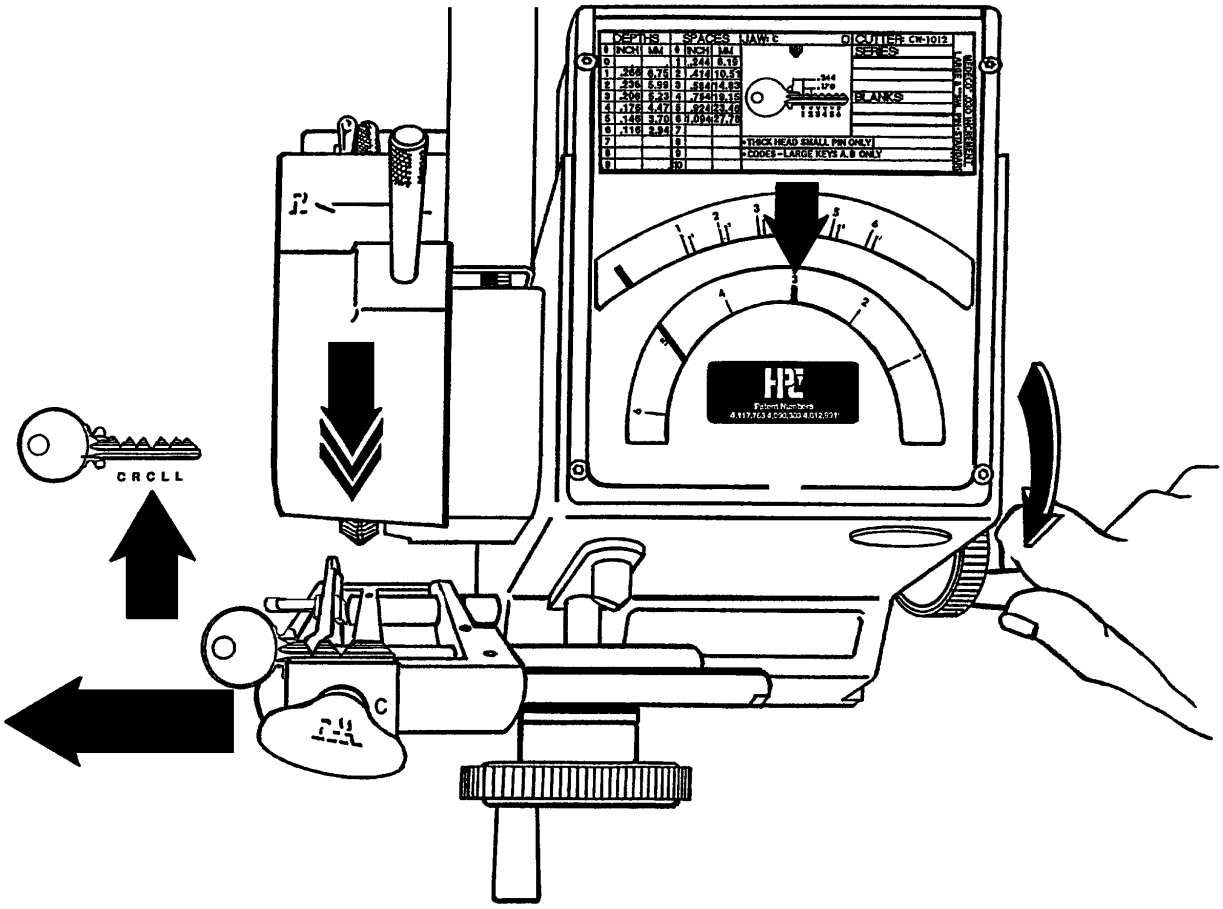
Back off.



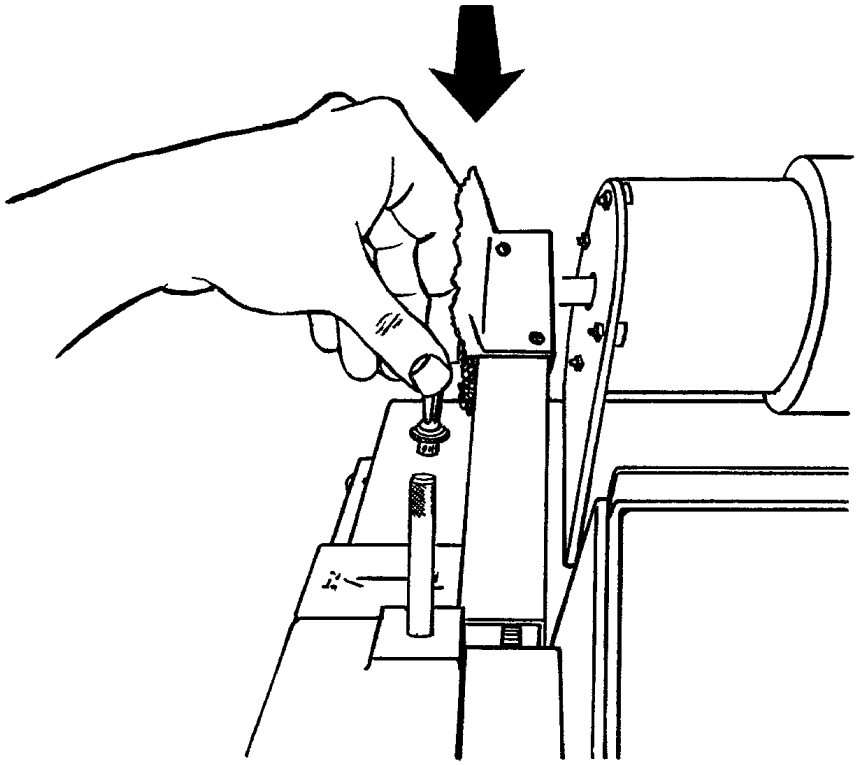
Move to next center angle cut and plunge.


DEPTHS
SPACES
JAWS
CUTTER CW-1012
SERIES
BLANKS
THICK HEAD SMALL PIN ONLY
CODES - LARGE KEYS A,B ONLY
C

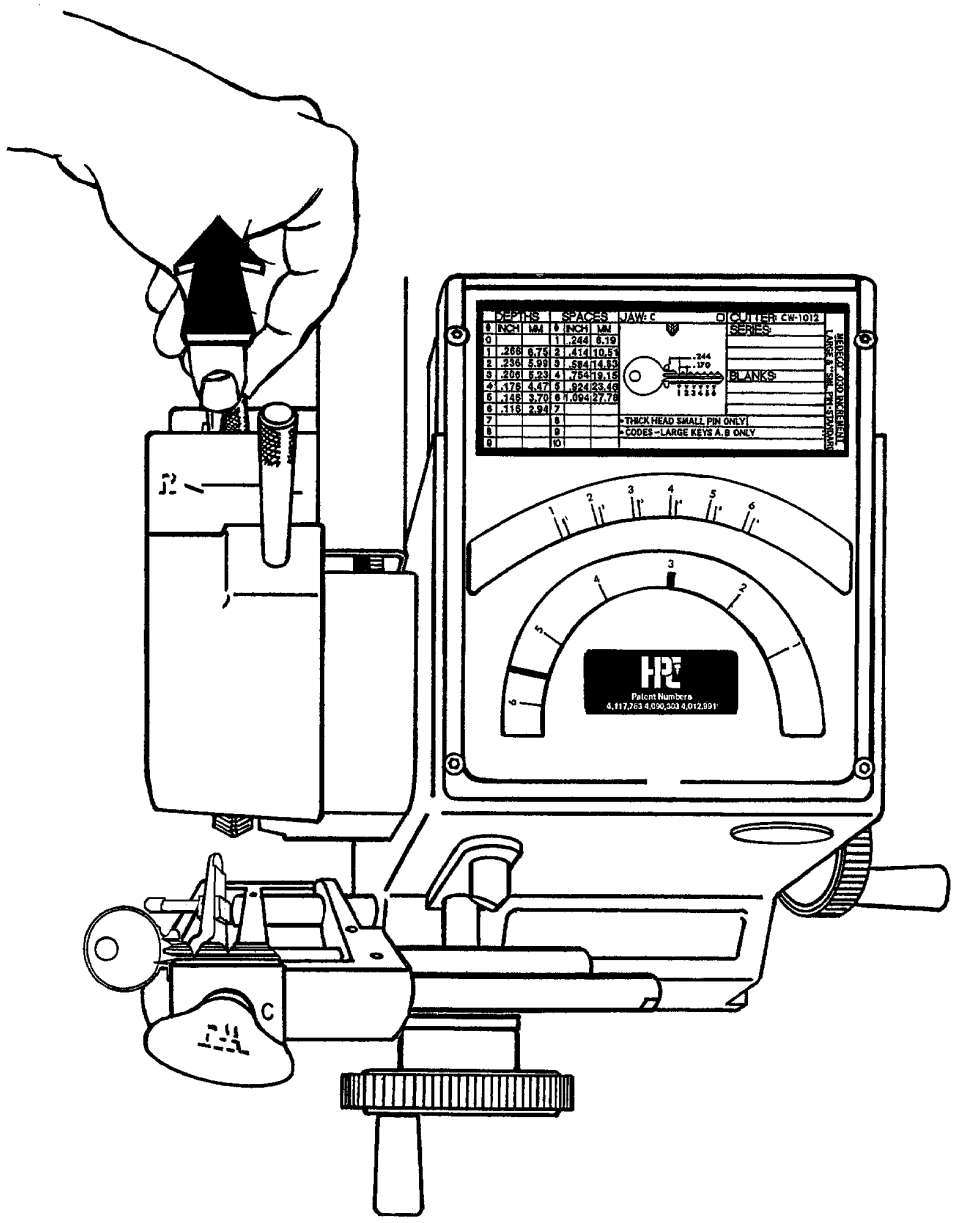
Back off.



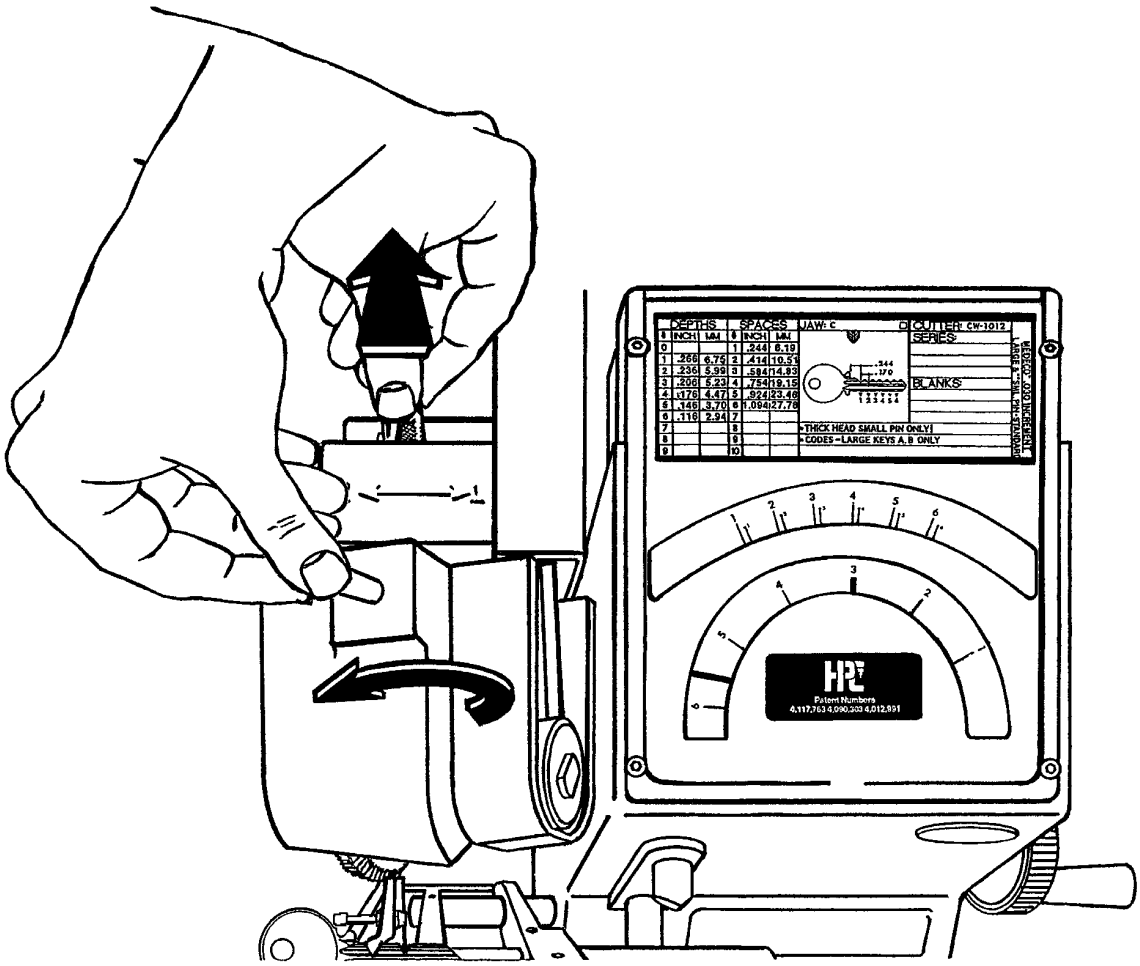
Move away from cutter.



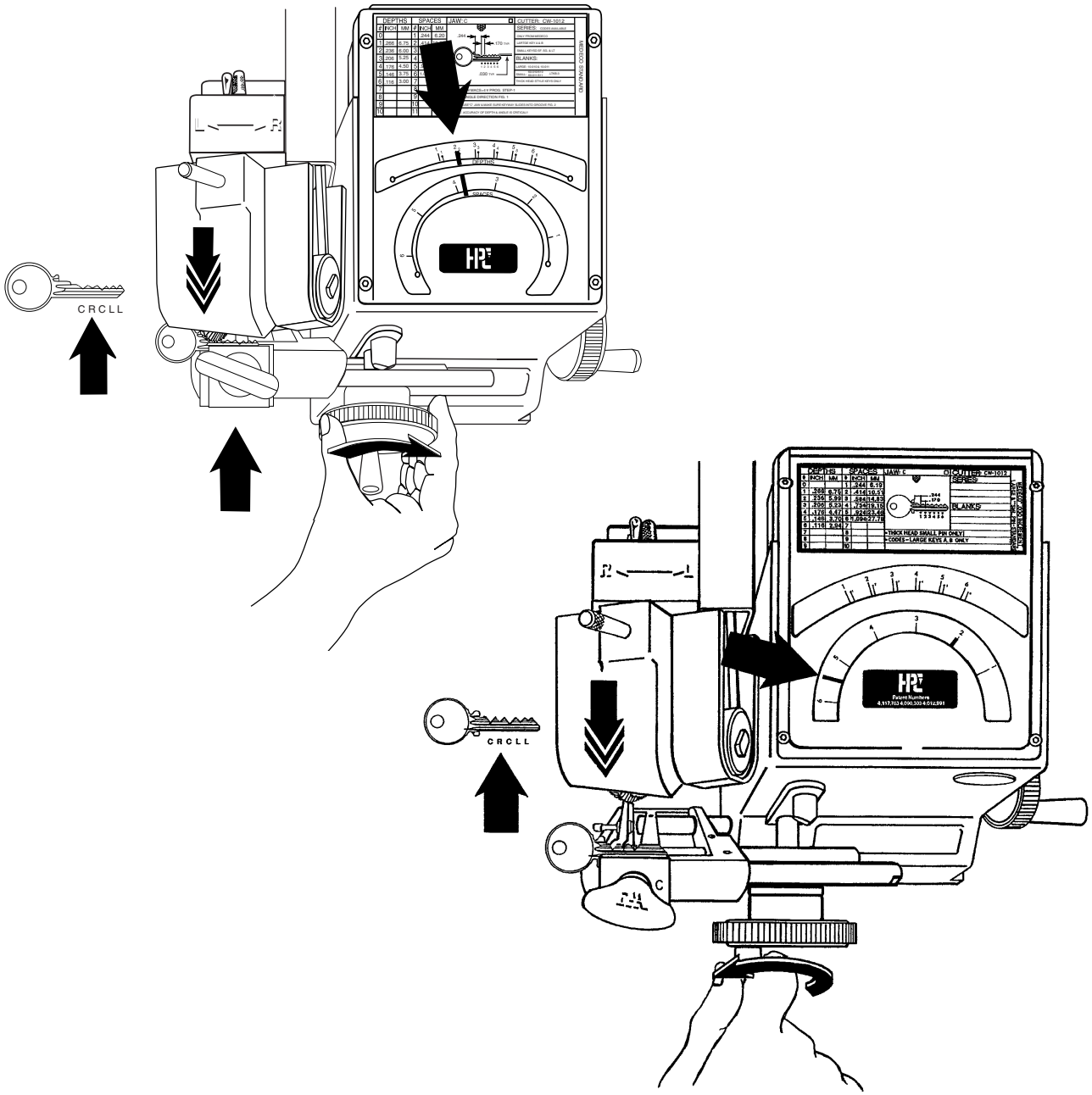
Turn off the machine.



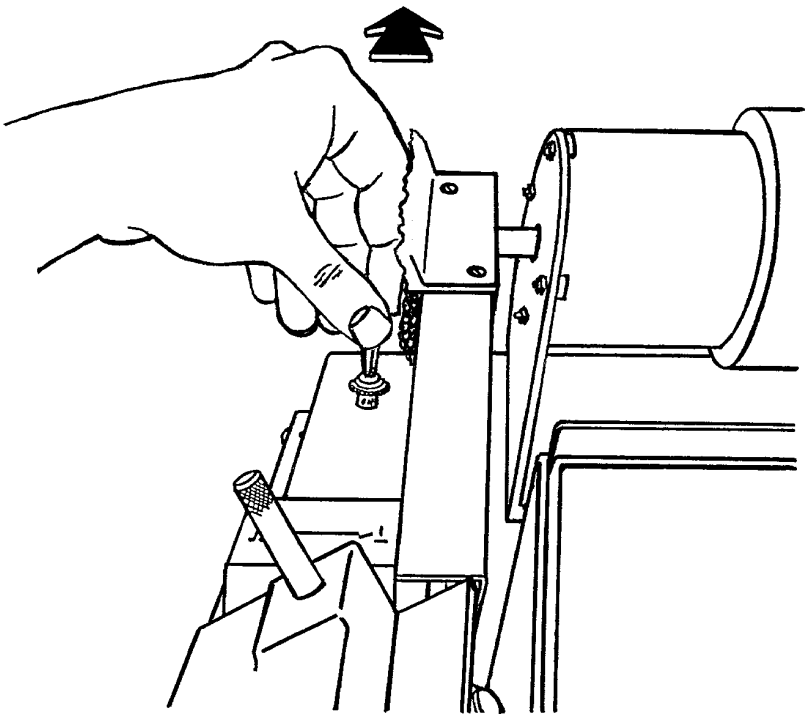
Pull outward on angle index pin.



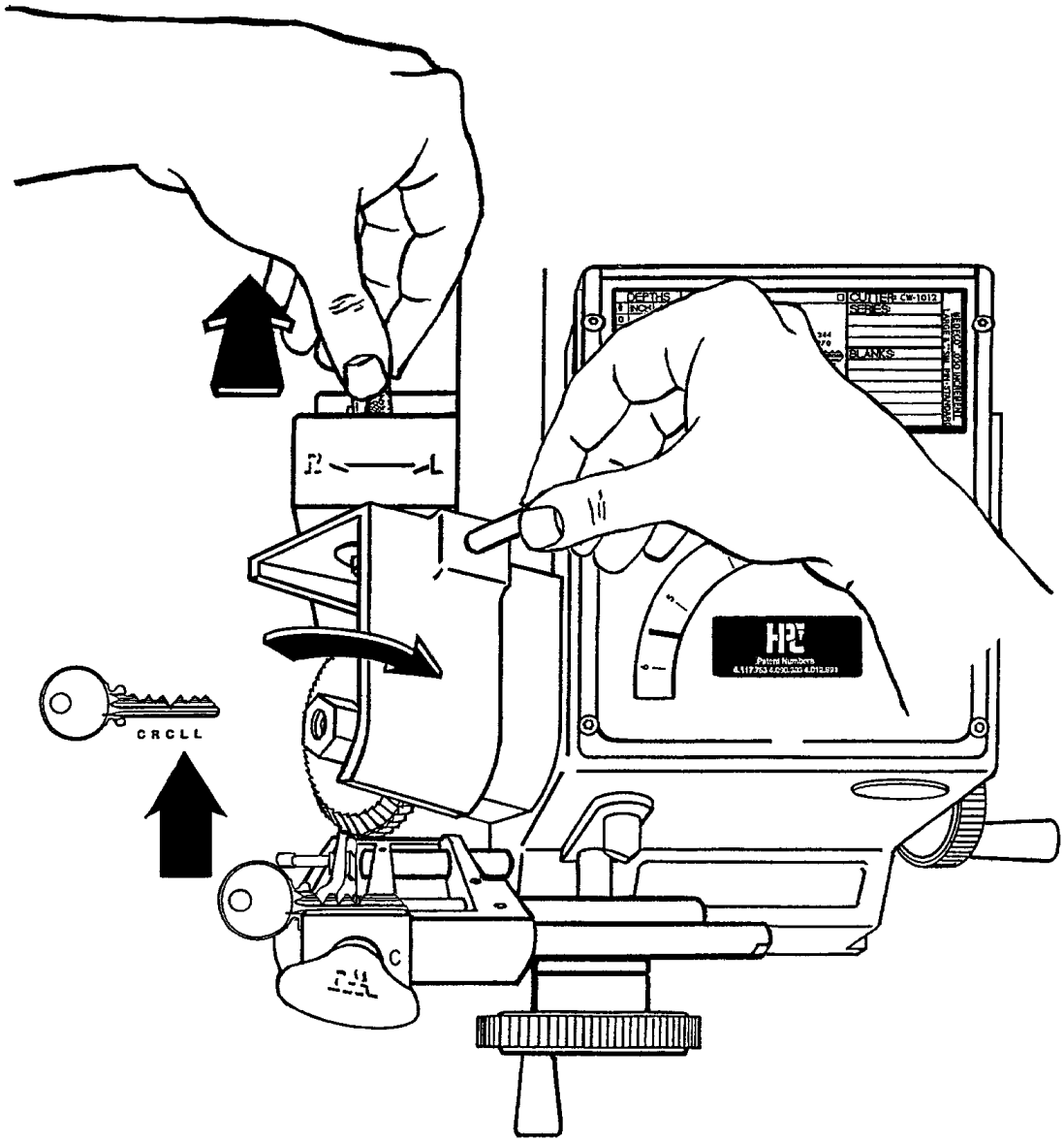
Swivel cutter head by the angle pivot pin, as indicated by the arrows.



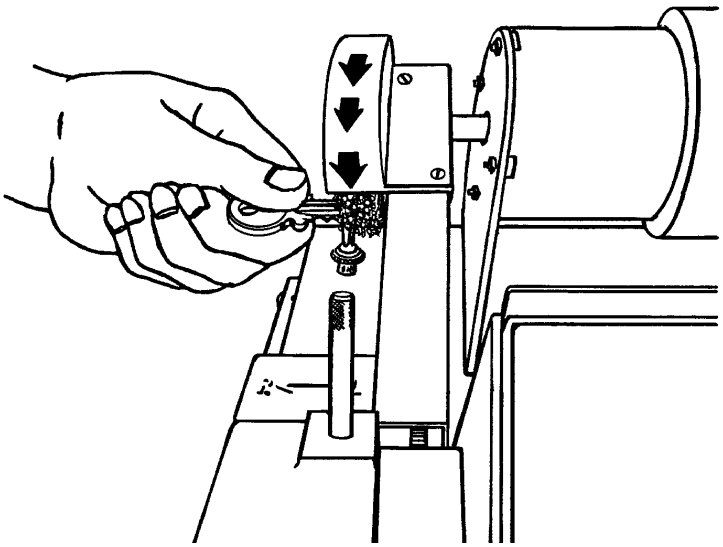
Be sure the index pin is relocked into the cutter head before operating. Make all right angle cuts at this time.

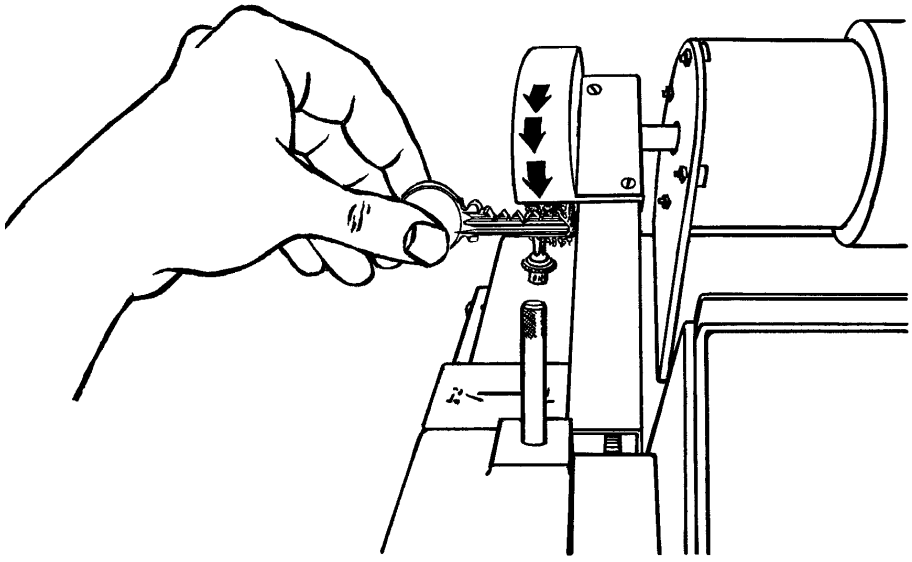


Then turn off the machine.



Repeat the same procedure for left angle cuts.

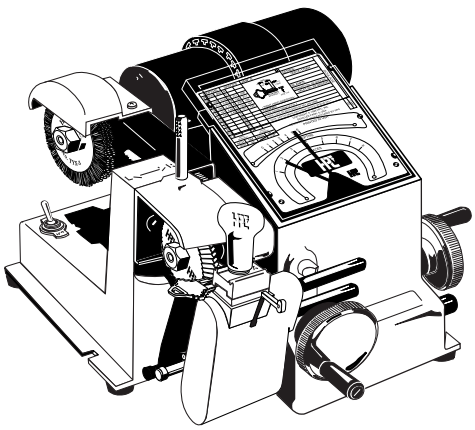




Be sure to brush Medeco® keys exceptionally clean and free of all burrs. Hold the cut key so that the rotation of the deburring brush sweeps the burrs out and away from the cut.

*Medeco® is a registered trademark of Medeco Security Locks, Inc.

7.0
RE-CALIBRATION OF DEPTH



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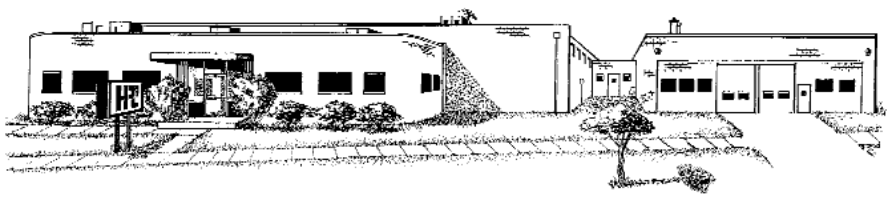


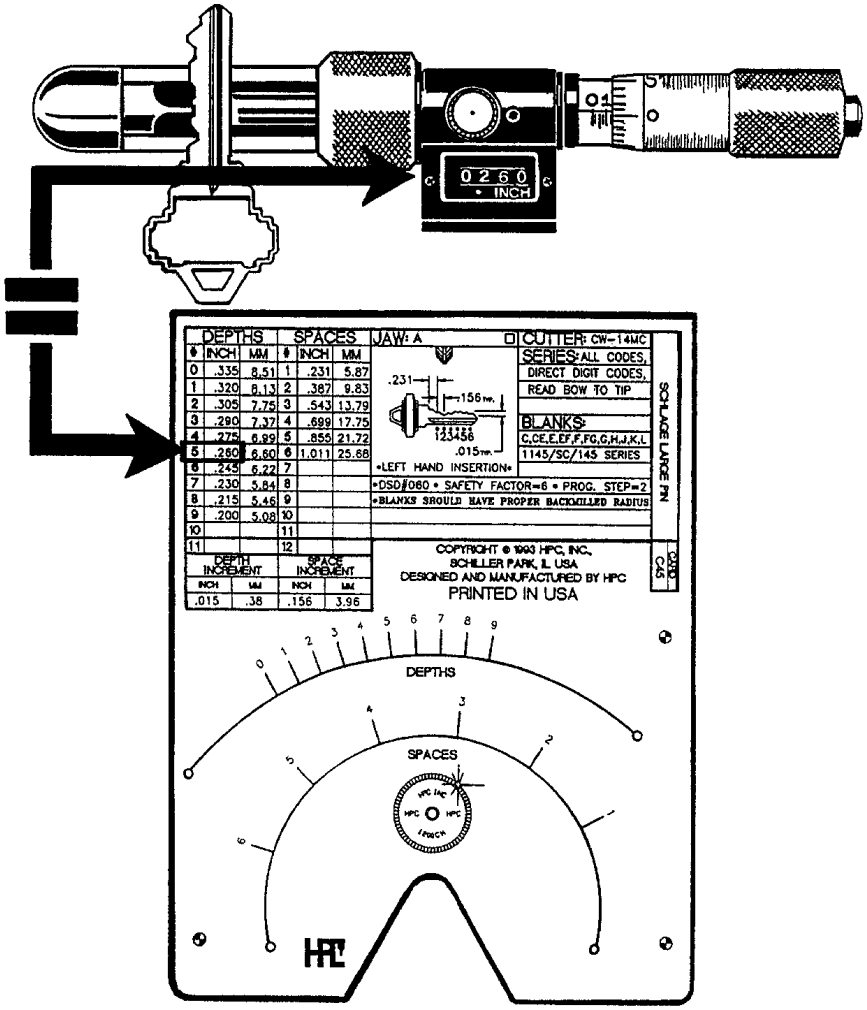
ATTENTION: PLEASE READ BEFORE PROCEEDING.

RE-CALIBRATION OF DEPTH

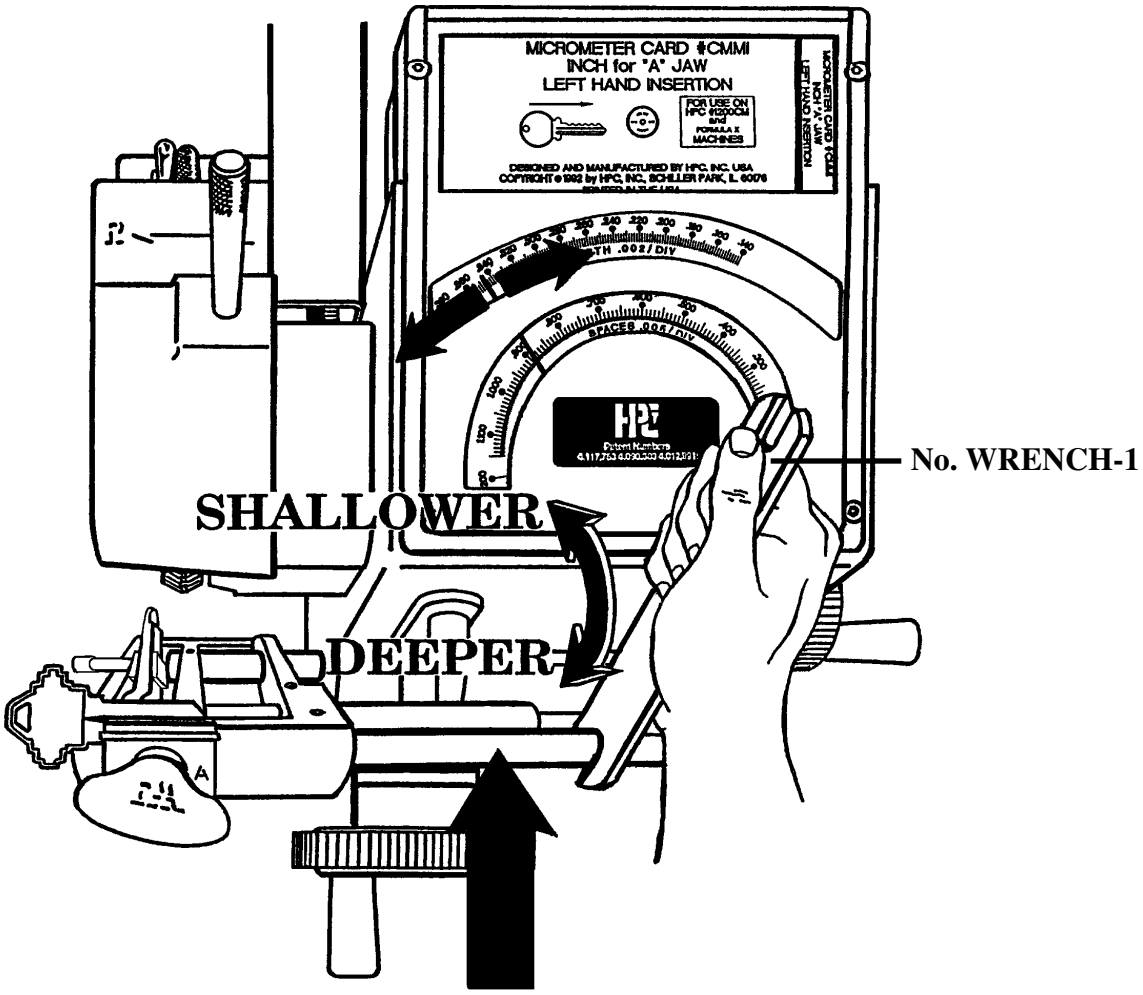
NO RE-ADJUSTMENT of depth is required when changing from one code card to another. The depth indicator marks on each code card are positioned for correct alignment when using the factory cutter wheels. No special washers are required on either side of the cutter.

The need to re-adjust the depth is rare and should be done only after the more common causes for mis-cut keys are eliminated.

Remember, when originating a key by code you do not have access to an operable key. Quite often code numbers are mis-read, locks are coded incorrectly when they are new and code books occasionally have typographical errors. Be aware of these unintentional errors that detract from the successful cutting of keys by code. After eliminating the above mentioned causes for mis-cut keys and checking for correct calibration with a caliper or micrometer - then proceed.



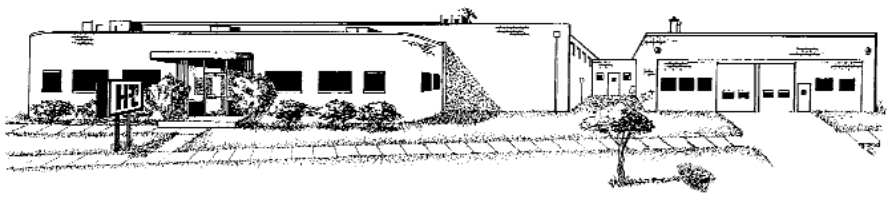
Cut a key by code and compare carefully measured depths against a code card.



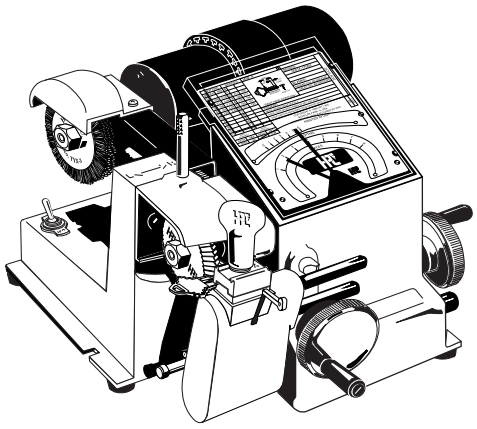
The two flats on the end of the eccentric shaft allow a 3/8" open end wrench (such as No. WRENCH-1) to rotate the eccentric shaft either towards you, making the depths deeper, or away, making the depths shallower. **There should be no need to loosen the two set screws.** The maximum range of the eccentric shaft is 90° when pulling towards you (a maximum of -.015" in depth change) and 90° when pushing away (a maximum of +.015" in depth change). Therefore only a small turn is used to change depths.

Very rapid minor depth adjustments are made by comparing the depth of a cut against the code card and then rotating the eccentric shaft slightly as required.

HPC, Inc.
Designer and Manufacturer of Security Products Since 1956.



8.0
RE-CALIBRATION OF SPACE



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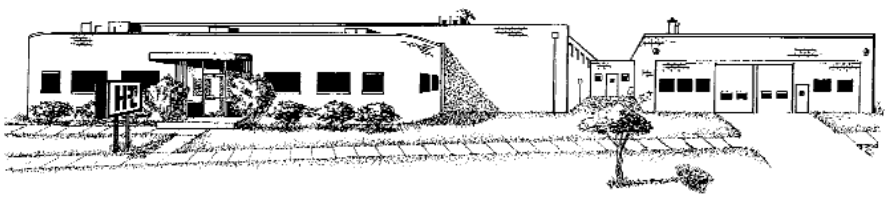


ATTENTION: PLEASE READ BEFORE PROCEEDING.

RE-CALIBRATION OF SPACE

NO RE-ADJUSTMENT of space is required when changing from one code card to another. The space indicator marks on each code card are positioned for correct lateral alignment when using the factory cutter wheels. No special spacing washers are required on either side of the cutter.

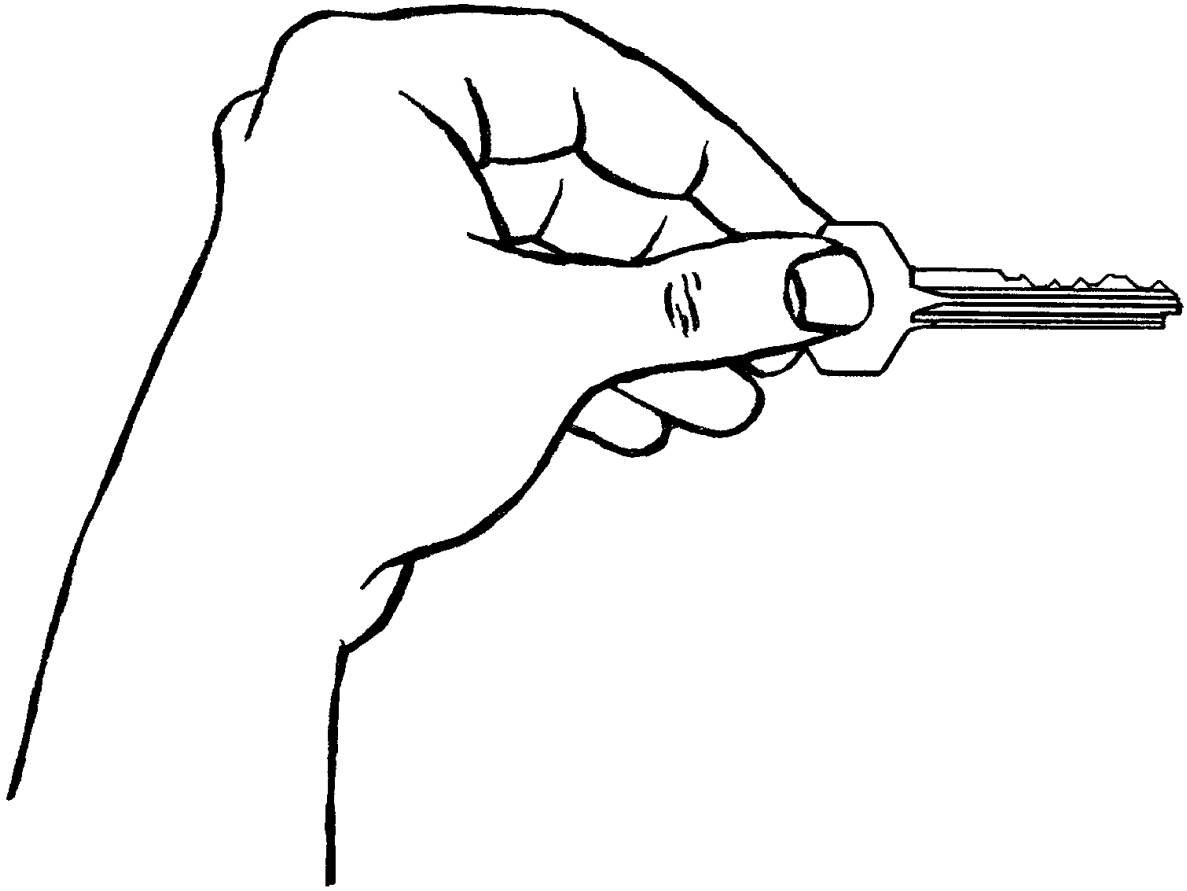
The need to re-adjust the space is rare and should be done only after the more common causes for mis-cut keys are eliminated.

Remember, when originating a key by code you do not have access to an operable key. Quite often code numbers are mis-read, locks are coded incorrectly when they are new and code books occasionally have typographical errors. Be aware of these unintentional errors that detract from the successful cutting of keys by code. After eliminating the above mentioned causes for mis-cut keys and checking for correct depth calibration - then proceed.

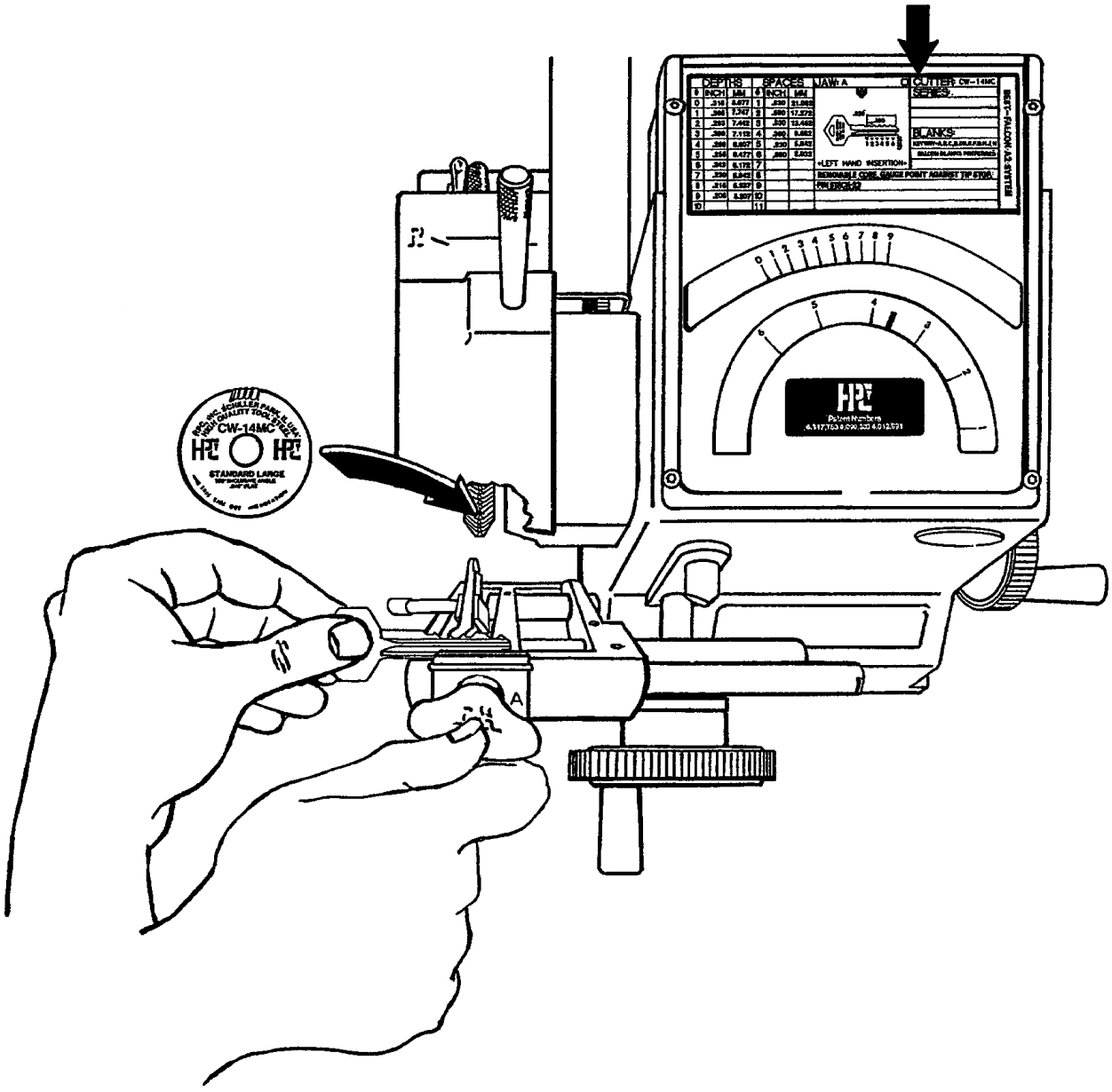
If re-adjustment of space is needed, follow the instructions for tip-gauged space adjustments first. Then proceed with shoulder-gauged space adjustments. Because the tip gauges are built into the bottom jaw and the shoulder gauge is mounted on its own pivot, re-adjusting the shoulder gauge may not properly re-calibrate your 1200CMB.

8.1 Cutting Too Close or Too Far From the Tip

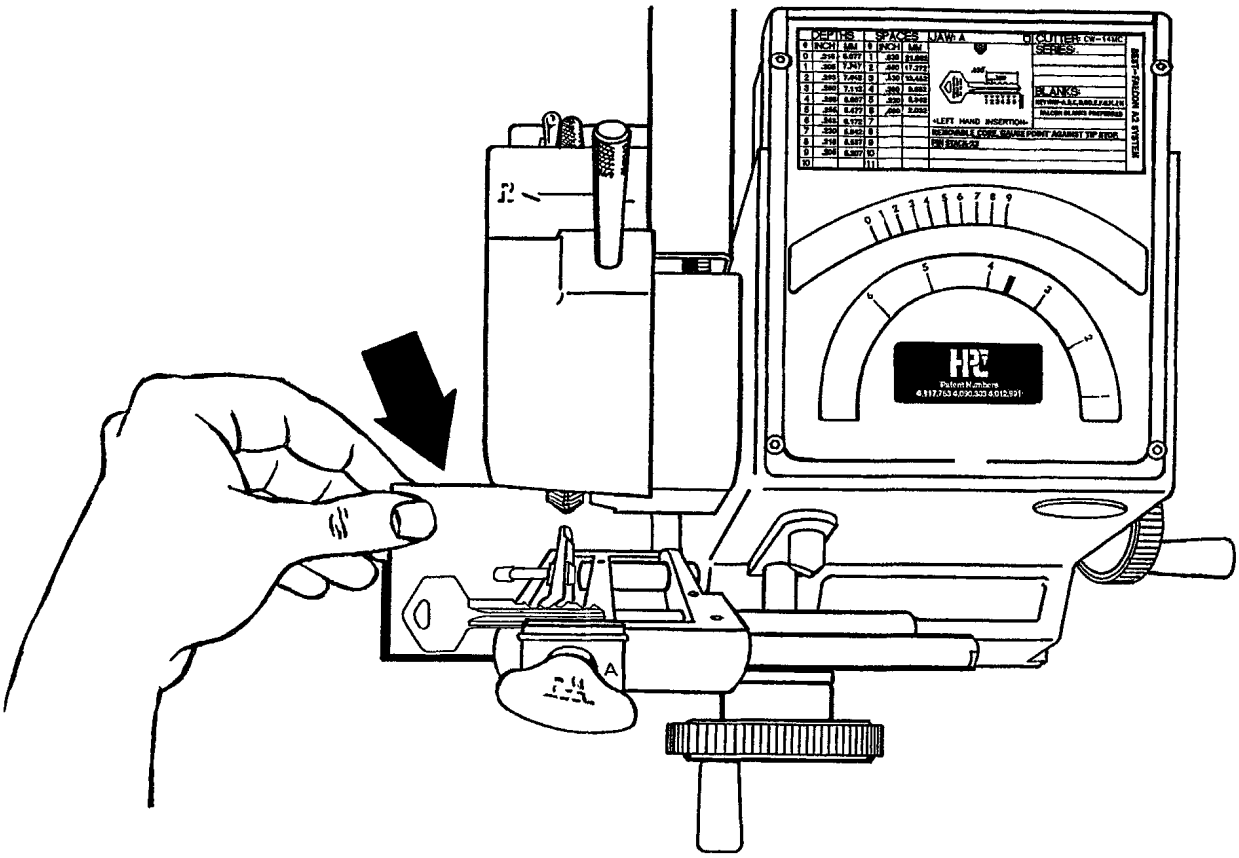
CUTTING TOO CLOSE OR TOO FAR FROM THE TIP ON KEYS GAUGED FROM THE TIP.



Select an original large cylinder type tip-gauged cut key such as Best or Falcon.

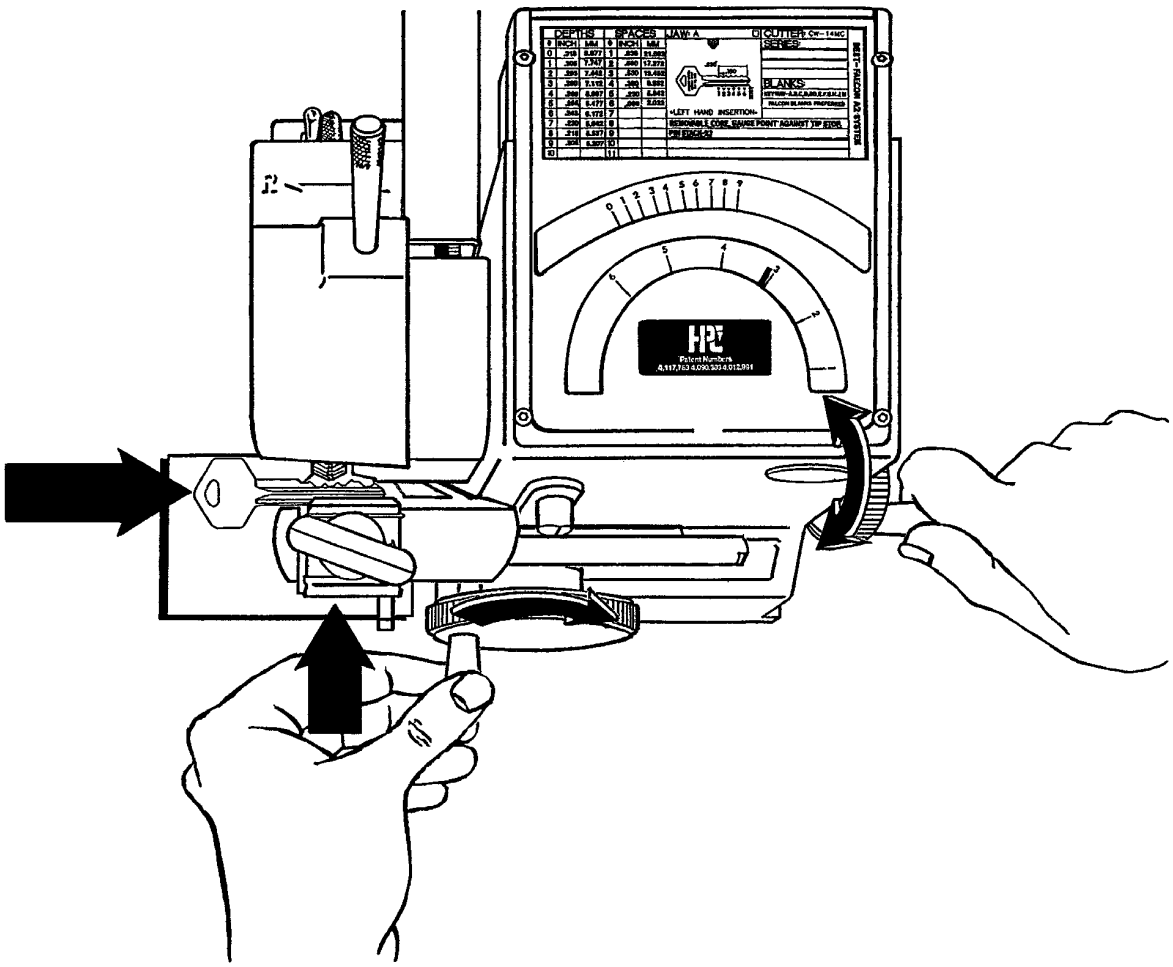


Put on the correct cutter and insert the correct card. Then, gauge and clamp the key.

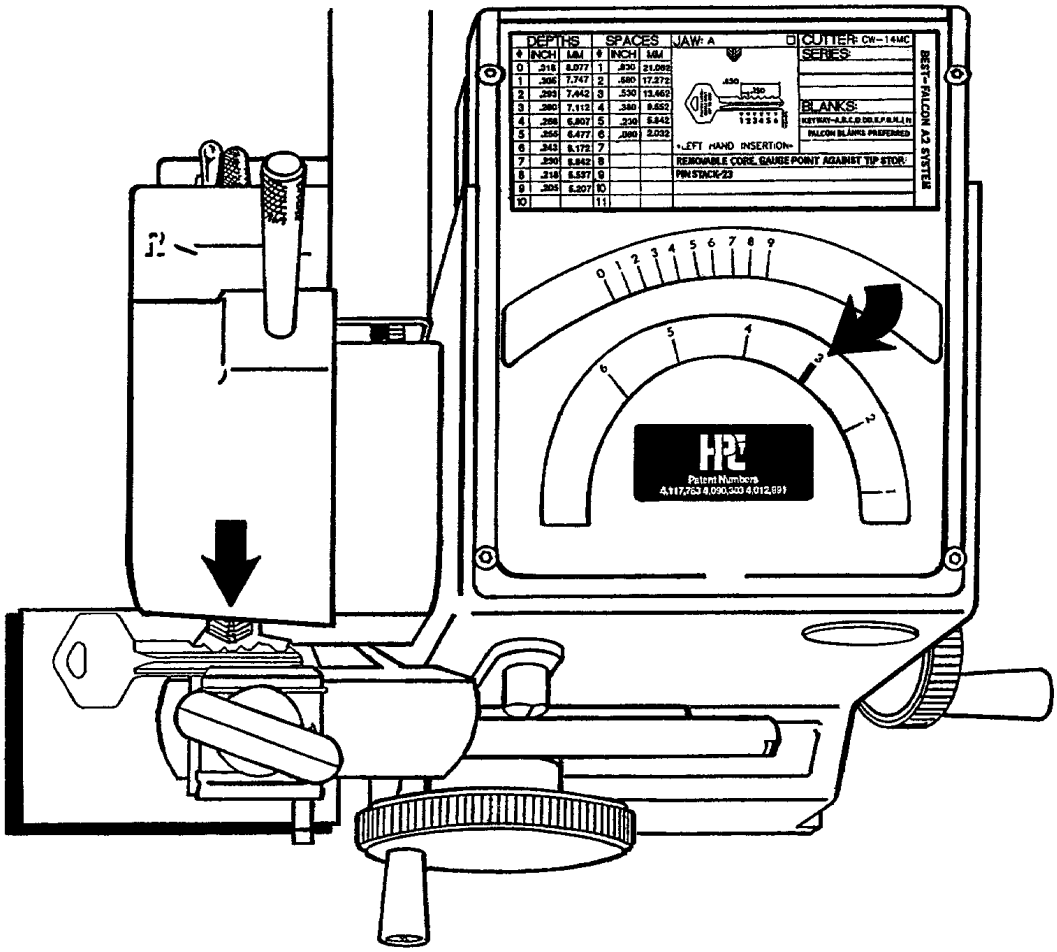


Place a white piece of paper beneath the cutter for improved vision of alignment.

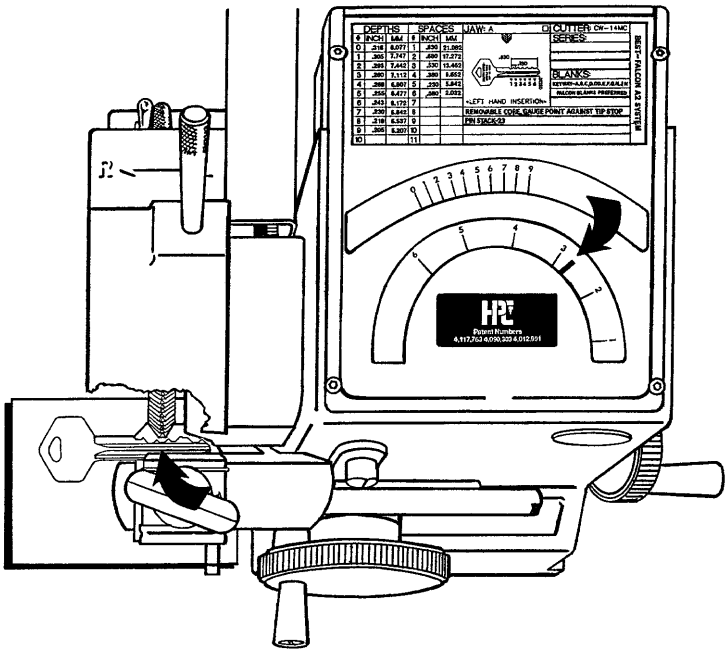
NOTE: Unplug machine for these and the following operations.

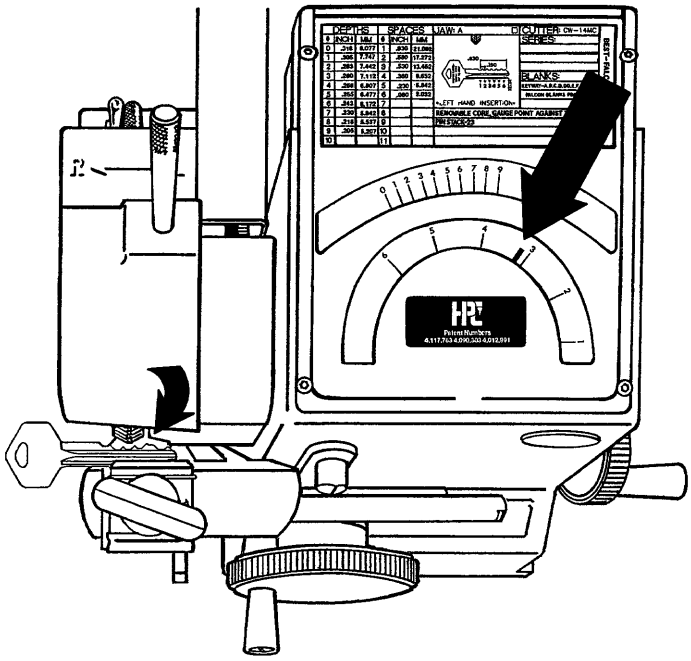


Rotate lateral crank to position the key with the most easily seen cut carefully centered beneath the cutter as shown. Rotate the depth crank until the cutter is fairly deep within the cut, (Deepest cuts are usually the easiest to see.)

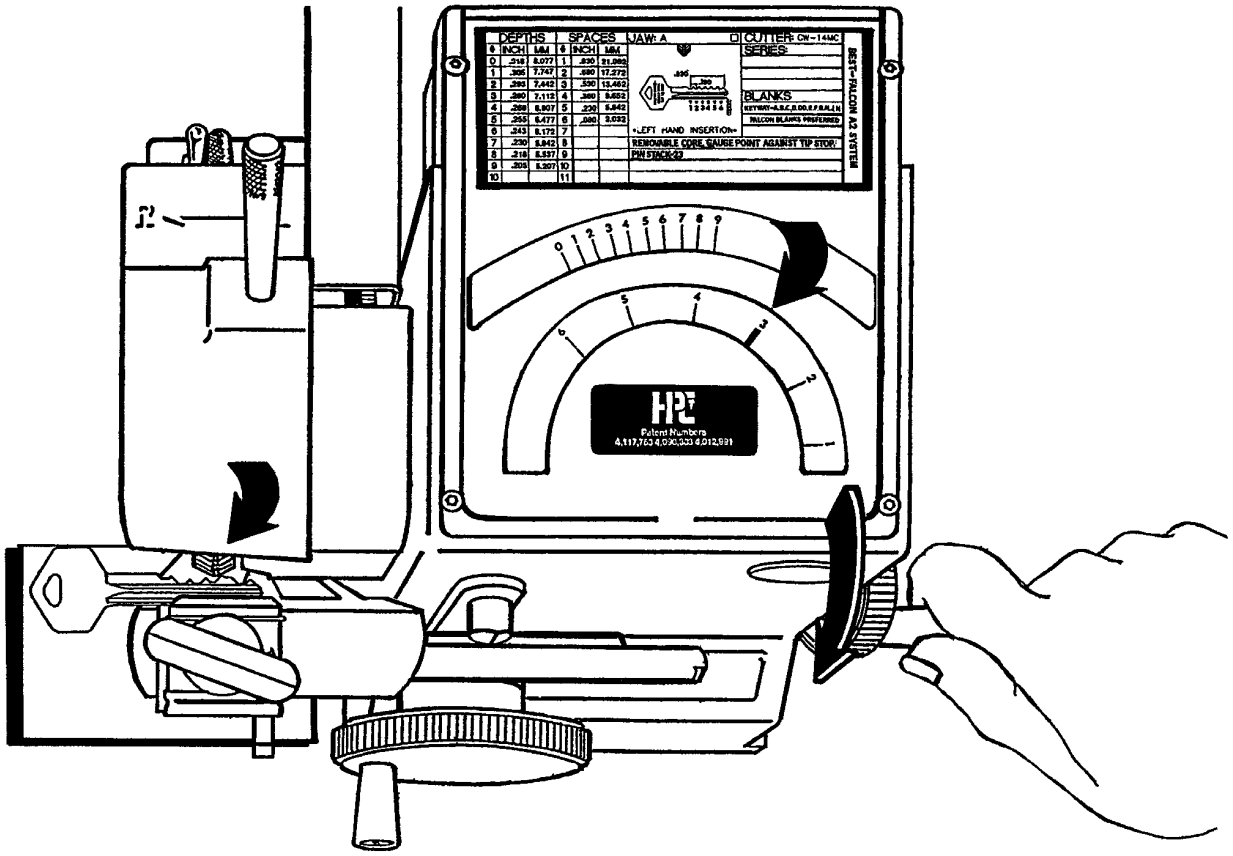


If space indicator needle is centered over the corresponding space mark the space adjustment is correct. Go no further.

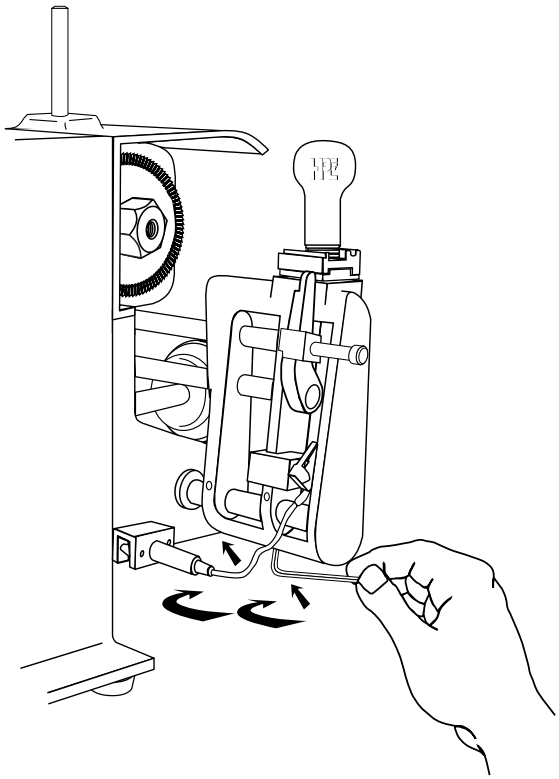


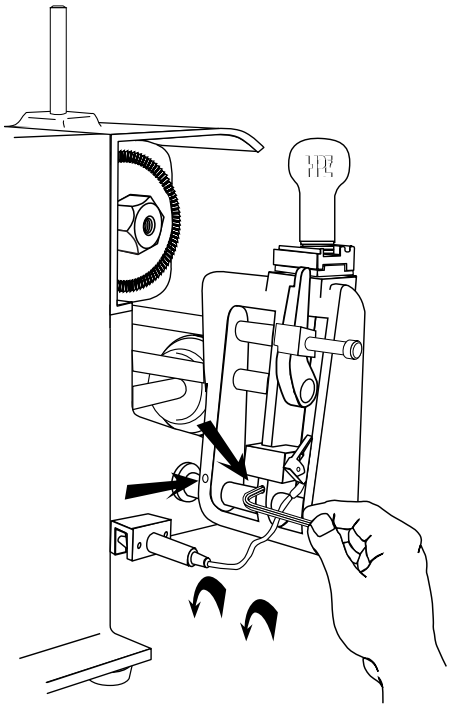


If the space indicator needle is offset to the right, the machine is cutting too close to the tip.
If the space indicator is offset to left, the machine is cutting to far from tip.
(Note:Re-calibration of tip **does necessitate** re-calibration of shoulder space. See next section.)

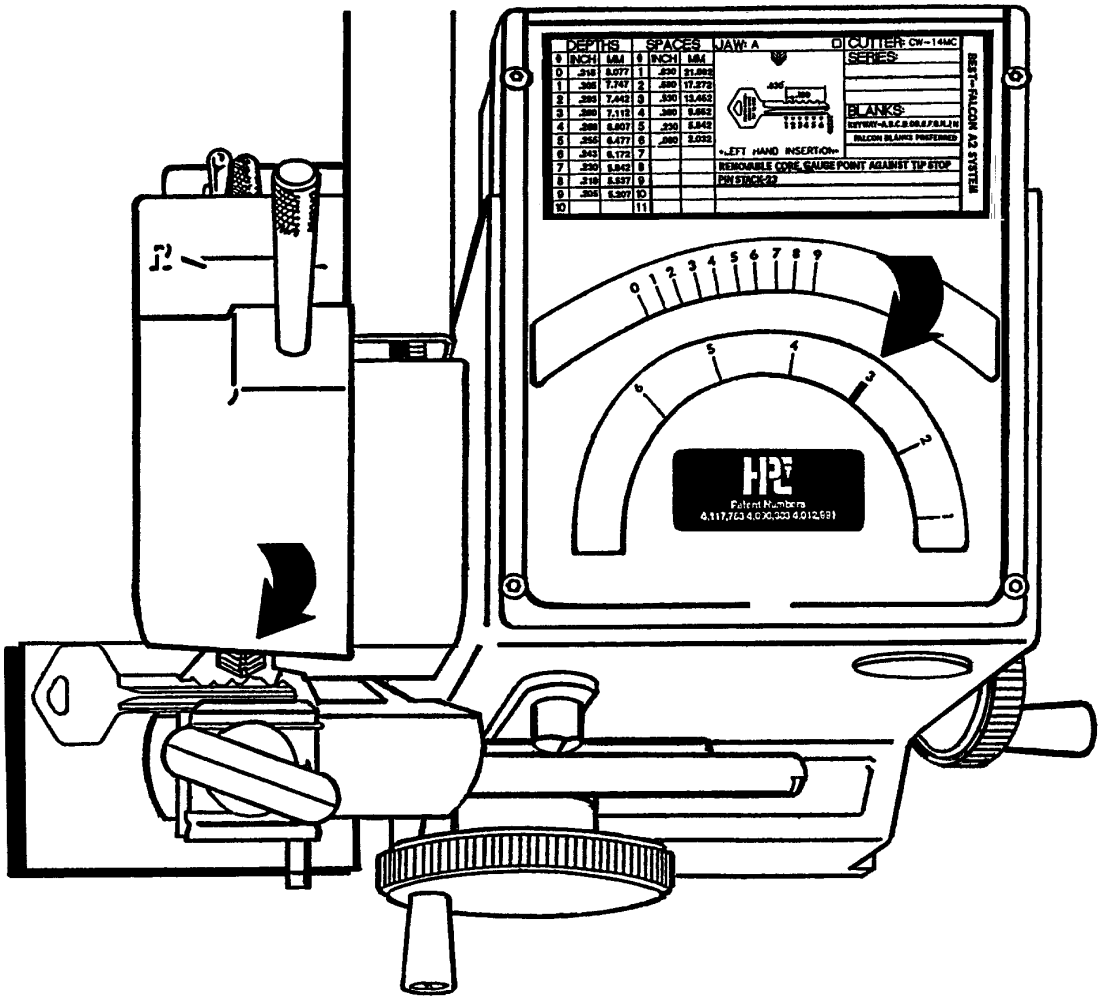


Rotate the lateral crank until the indicator needle is centered over the corresponding space mark as shown. Rotate the Depth crank until the cutter is fairly deep within the cut.

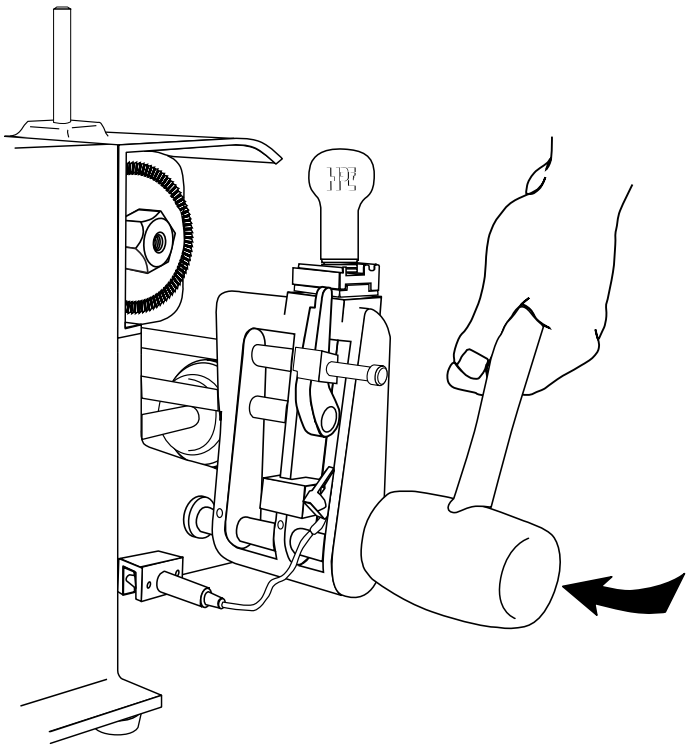


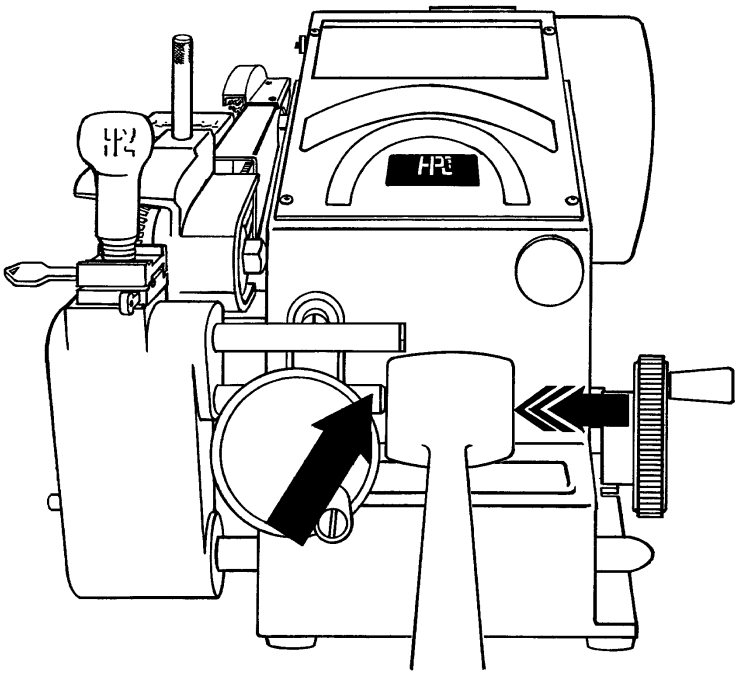


Loosen the four set screws that hold the pivot arm onto the pivot arm shaft. DO NOT REMOVE PIVOT ARM.

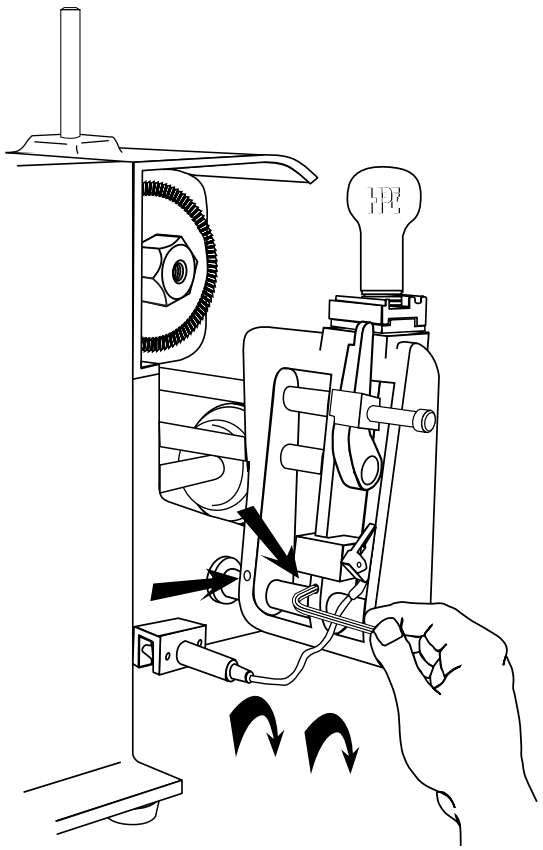


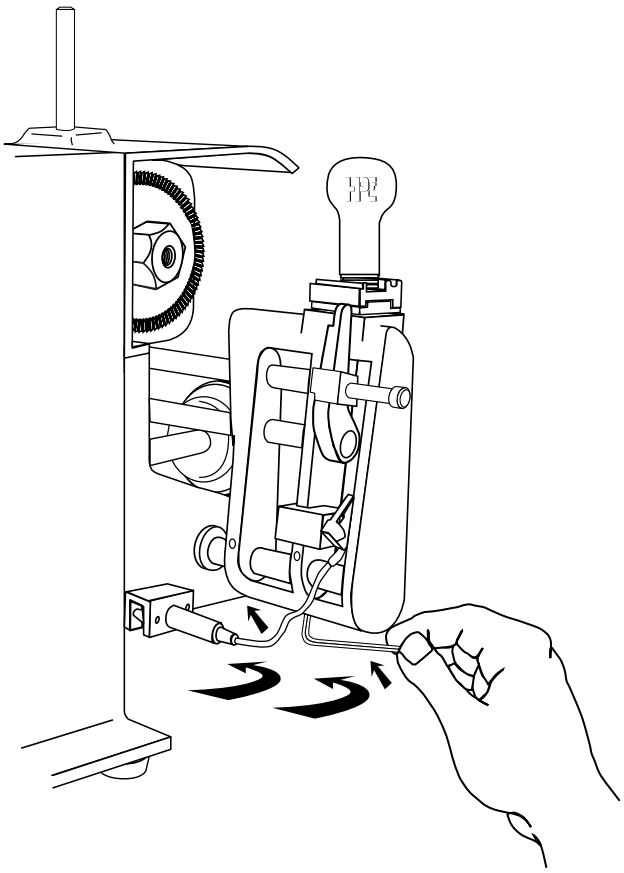
Re-position the space indicator needle if it has moved while loosening the set screws.





With a small rawhide or plastic mallet, “lightly” tap the lower left side of the pivot arm until the pin seat of the cut is directly opposite the flat of the cutter, as shown previously. (Be sure all FOUR set screws are loose.)

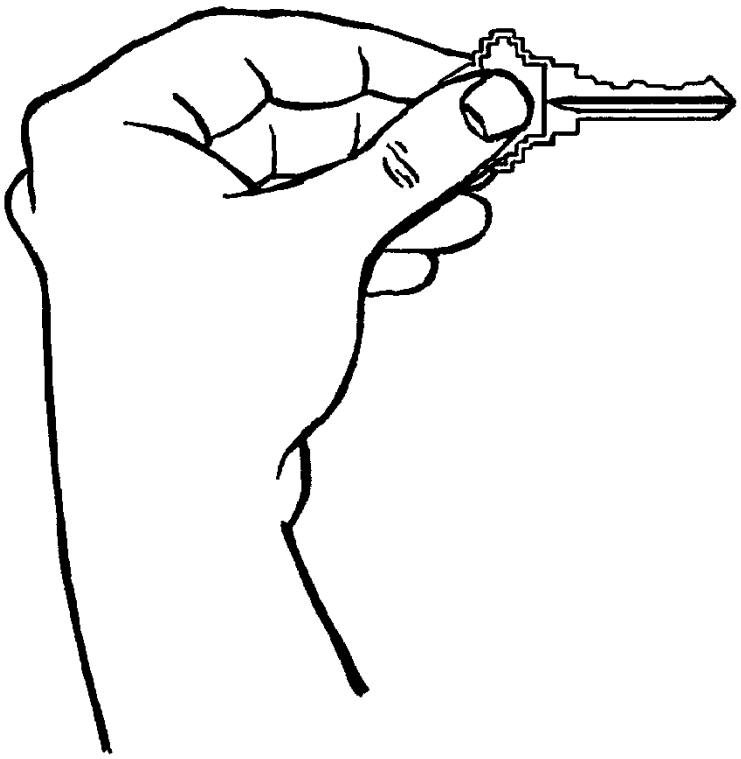




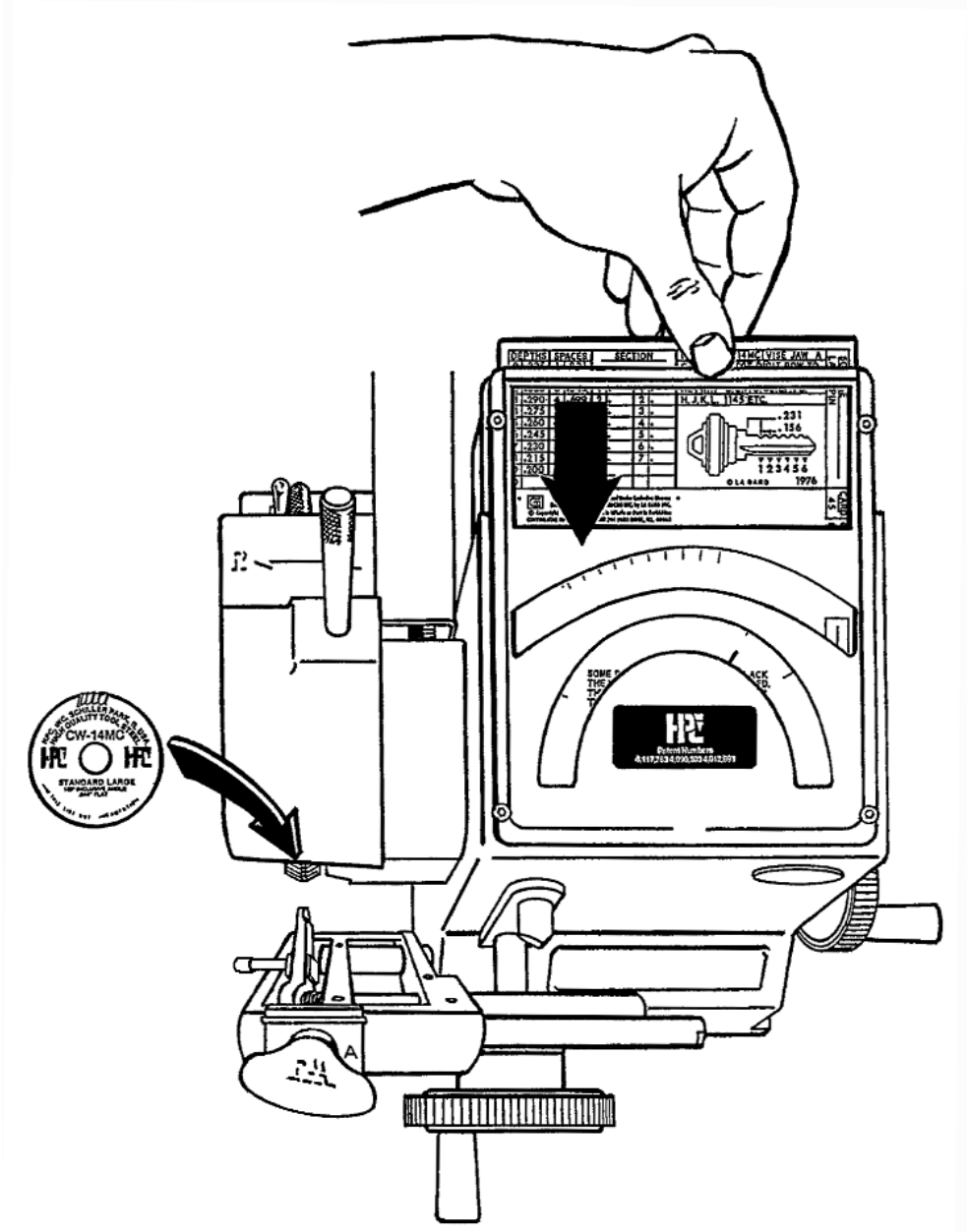
With the cutter aligned opposite the cut and the space indicator needle centered over the corresponding space mark, tilt the machine up, if necessary, (without disturbing the setting) and re-tighten the set screws.

8.2 Cutting Too Close or Too Far From the Shoulder

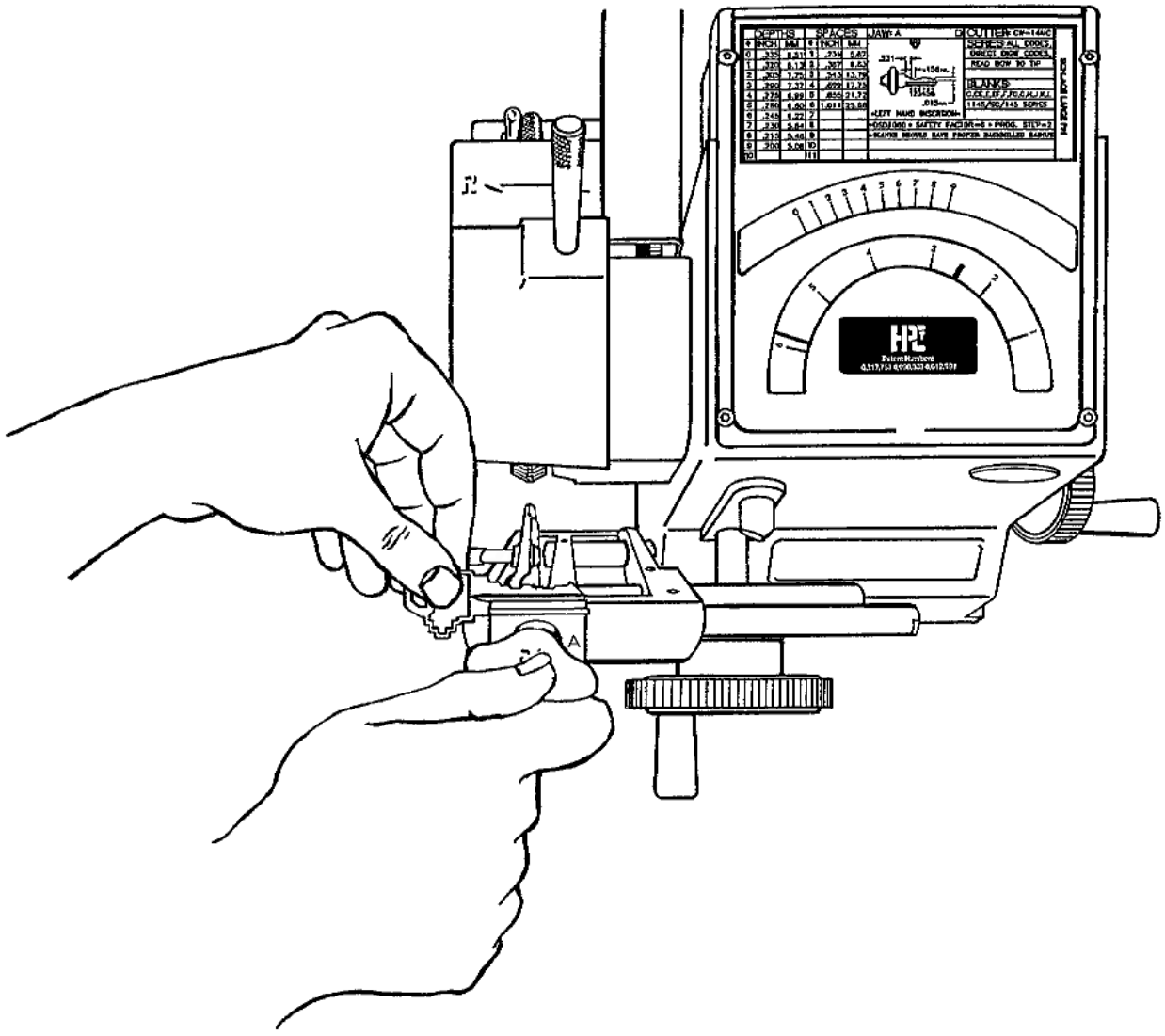
CUTTING TOO CLOSE OR TOO FAR FROM THE SHOULDER ON KEYS GAUGED FROM THE SHOULDER.



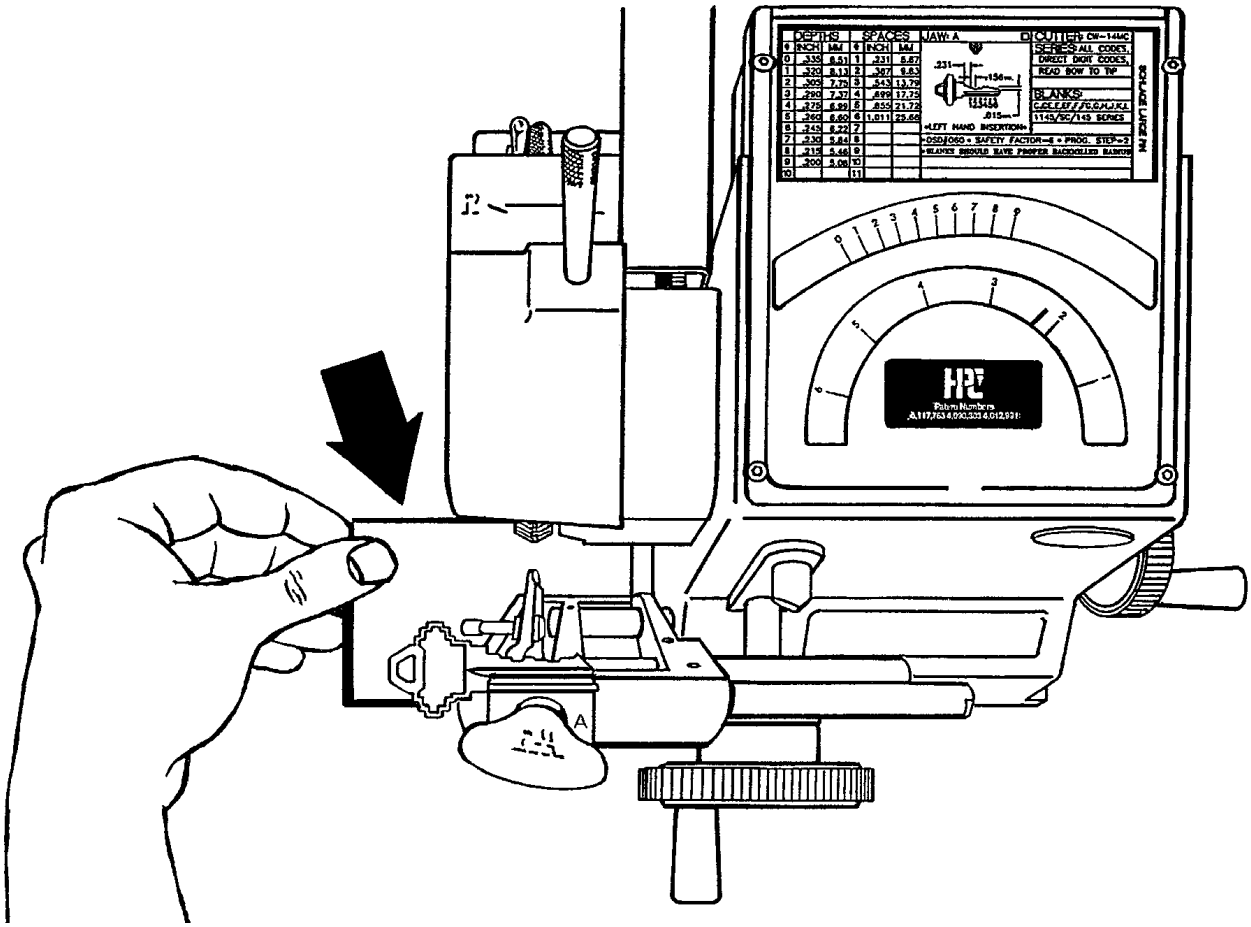
Select an original large cylinder type shoulder-gauged cut key, such as Schlage.
*Always check spacing on a tip stop key first, before adjusting for shoulder-gauged keys.



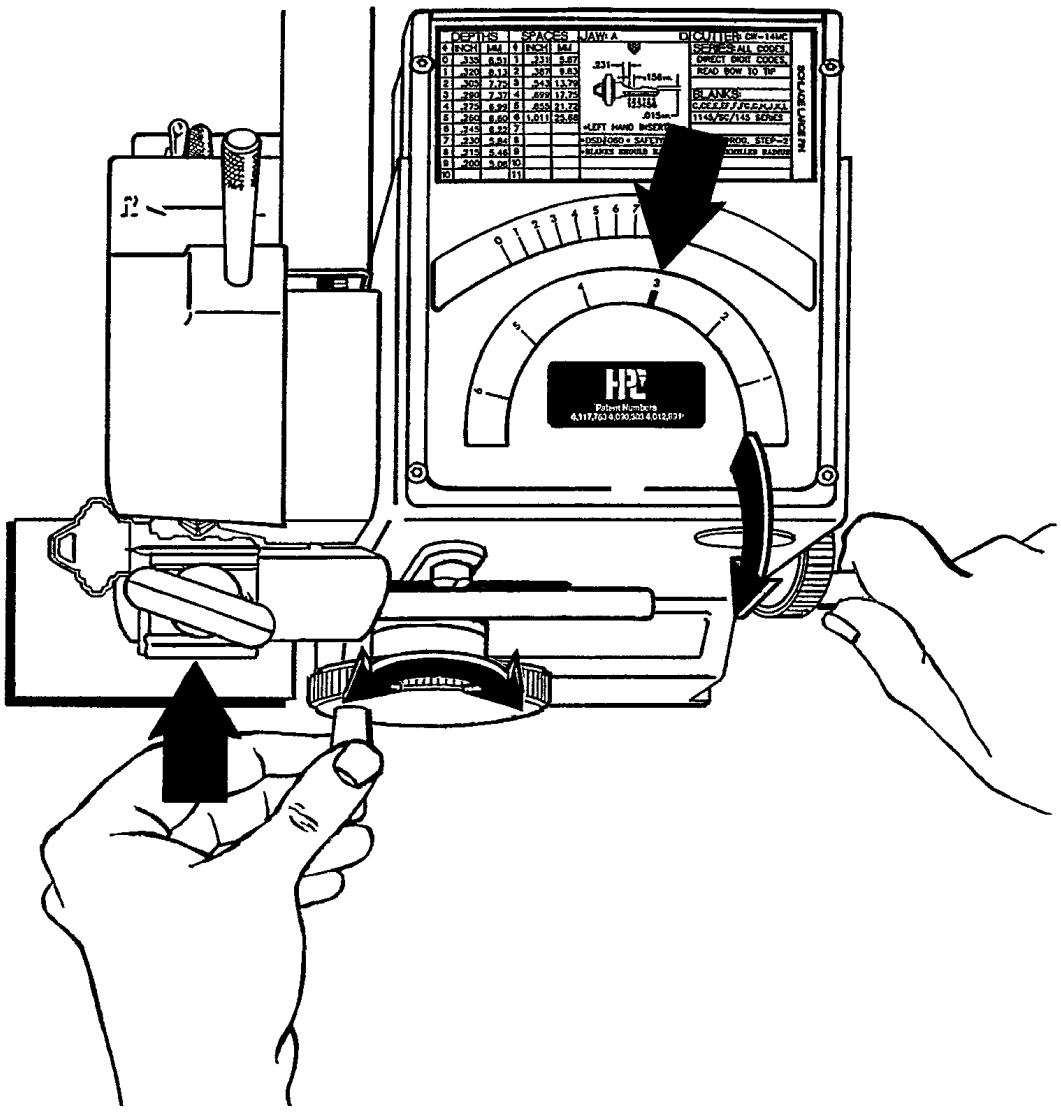
Insert the correct Code Card. Put on the correct cutter.



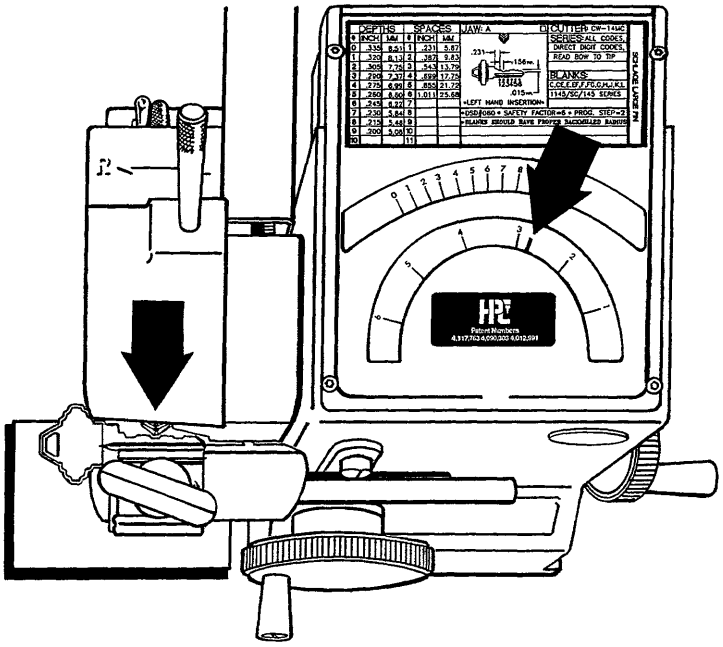
Gauge and clamp the key.

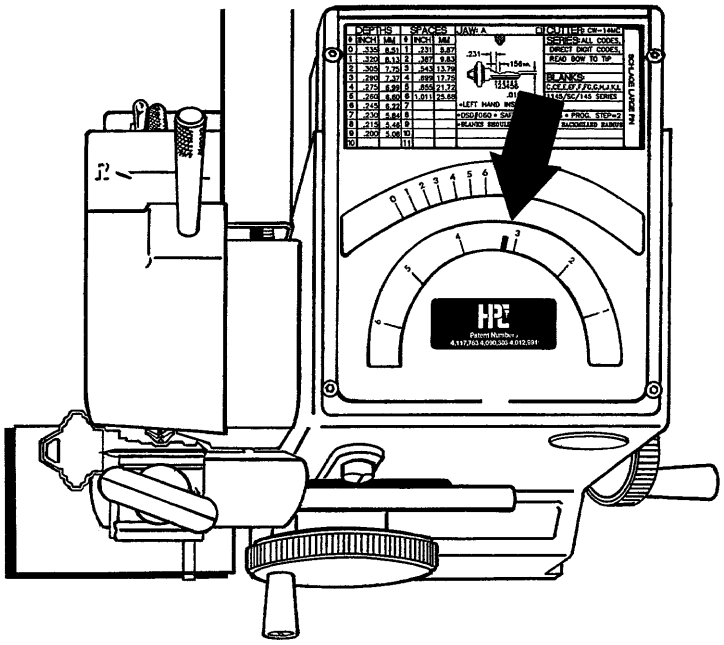


Place a white piece of paper of paper beneath the cutter for improved vision alignment.

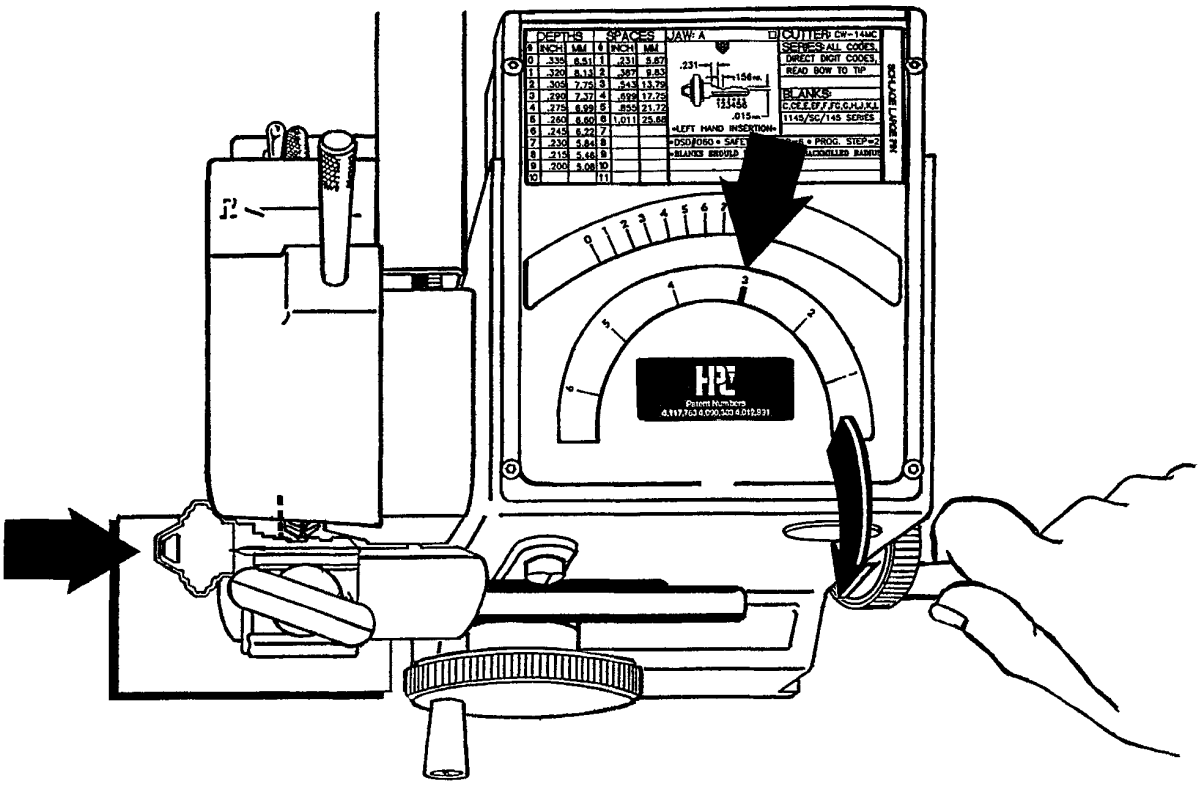


Rotate lateral crank to position the key with the most easily seen cut carefully centered beneath the cutter as shown. Rotate the depth crank until the cutter is fairly deep within the cut. If space indicator needle is centered over the corresponding space mark, the space adjustment is correct. Go no further.



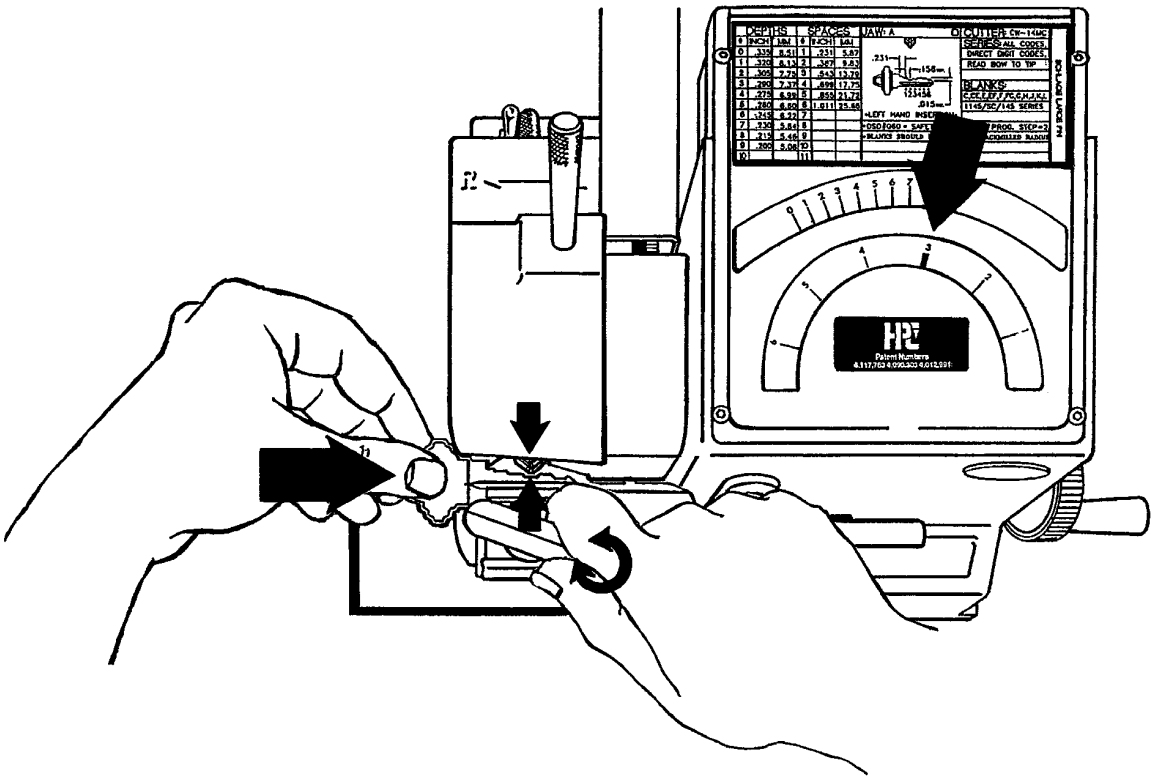


If the space indicator needle is offset to the right, the machine is cutting too far from the shoulder.
If the space indicator needle is offset to left, the machine is cutting too close to the shoulder.
(Note: Recalibration of shoulder spacing **does not necessitate** recalibration of tip space.)

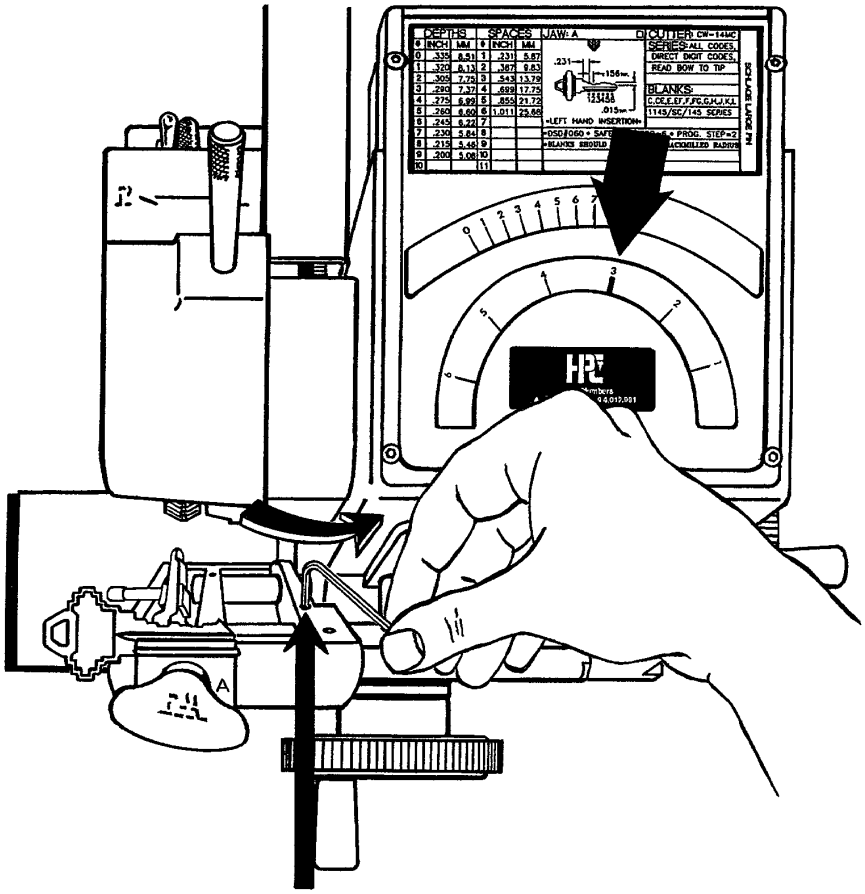


NOTE: Unplug the machine for these and the following operations.

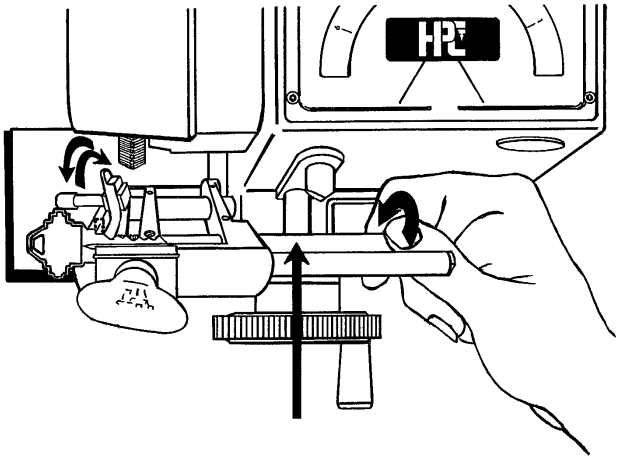
Rotate the lateral crank towards you until the space indicator needle is centered over the corresponding space mark as shown.

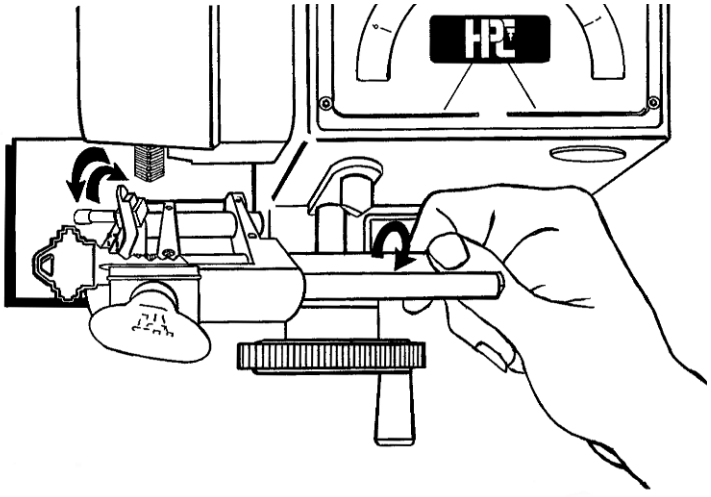


Loosen the key on the vise. Slide the key until the pin seat of the cut is directly opposite the flat of the cutter as shown. Tighten the key on the vise.

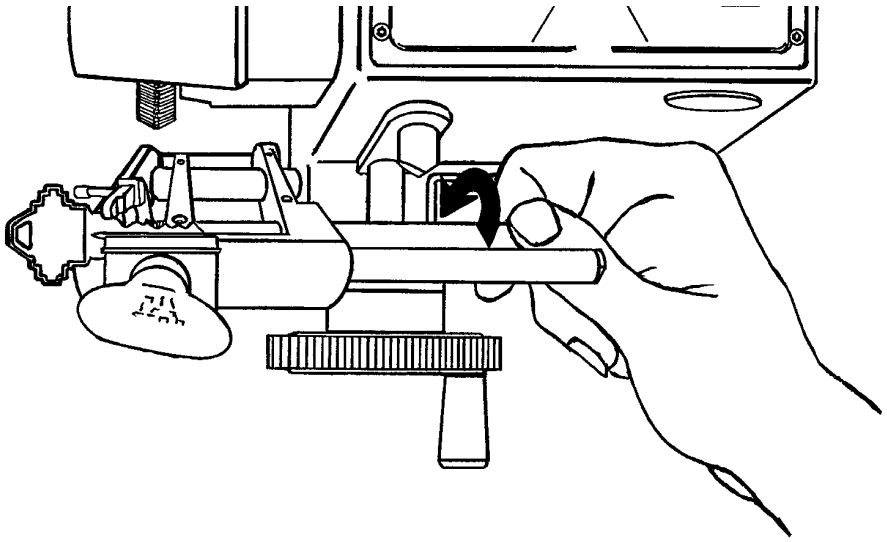


Loosen the set screw that holds the shoulder gauge turn bar onto the (CM-1024X) pivot arm.

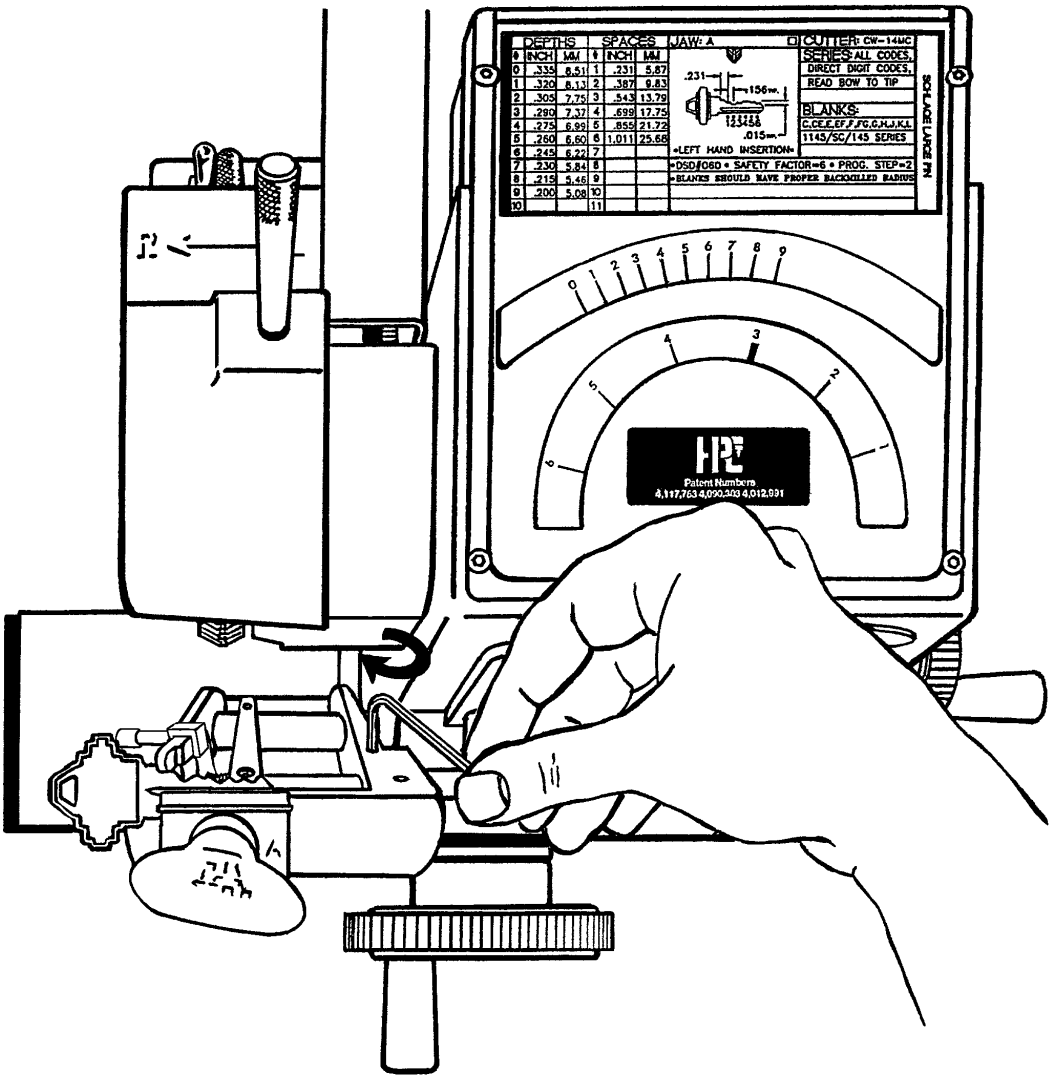




After loosening the set screw, swing the shoulder gauge upward and rotate the turn bar. If there is resistance, squirt some WD-40 or equivalent on the threaded end of the turn bar.
Then work loose by jointly swinging the shoulder gauge and rotating the turn bar as shown.

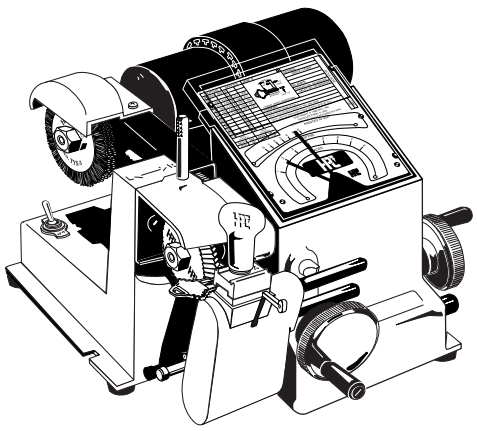


Now that the turn bar is loose, rotate the turn bar clockwise or counter-clockwise to move the shoulder gauge toward the shoulder of the key. The left side of the gauge should end up just barely touching the shoulder of the key as shown (as in normal gauging) do not use pliers or any tool that will scratch or mar the surface of the turn bar.



Tighten the set screw that holds the turn bar onto the pivot arm.

9.0
Preventive Maintenance, Lubrication, Repairs and Guarantee



LUBRICATION, PREVENTIVE MAINTENANCE, REPAIRS and GUARANTEE

1 -MOTOR - The motor is equipped with sealed bearings that require no lubrication.
2 -CUTTER HEAD - The cutter head is equipped with precision ball bearings for years of trouble free service and requires no lubrication. The cutter head swivel surface and plunger angle holes should be given a light coat of LPS#3 or equivalent, once every 4 to 6 months.
3 -DEPTH FEED CRANK BEARING - The black Delrin bearing (No. CM-1045) should be cleaned and a light coat of heavy grease applied when required, in order to maintain it's smooth feel.
4 -BEARINGS AND SLIDING SURFACES - These are to be given a light coat of a light grease at least every six months.
5 -EXPOSED STEEL SURFACES - All remaining exposed steel shafts, cutter, etc., should be sprayed with WD-40 or equivalent light oil at least every 6 months. Wipe off any excess.
6 -CLEANING - Remove all brass chips, dirt and grit from the surface of your machine daily, with a soft bristle brush. Take particular care in keeping the key vise jaw area clean and free of all residue build-up.
7 -CODE CARDS - The Code Cards are made of credit card stock and die cut to extremely close tolerances. Dirt is easily washed off with a mild non-abrasive liquid detergent, such as dishwashing soap and lukewarm water. Dab lightly with a soft coat until dry. Never use an abrasive or solvent-based cleaner to wash these Code Cards!
8 -CALIBRATING DEPTH FOR RE-SHARPENED CUTTERS - The diameter of a resharpened cutter is, smaller and therefore will make cuts shallower-if no depth adjustment is made. This is easily accomplished by rotating the eccentric shaft with a 3/8" open end wrench.
*See depth adjustment section (Section 6.0) for full explanation of the eccentric shaft adjusting process.
As cutters become worn, the alternative to purchasing a new set, would be to resharpen them. (HPC does not resharpen cutters.)
In order to maintain matched cutter diameters, all cutters for this machine must be sharpened at the same time, and all diameters must be sharpened proportionately.
9 -DRIVE BELT - The drive belt (No. CM-1083MA) was selected especially for this machine and should give years of good service. If it becomes worn or broken and requires replacement, be sure to install the new belt with the teeth outward. Note: The drive belt is somewhat more noisy when it is made to "cross-over" as the cutter head is swiveled to either the left or right angle when cutting Medeco® keys.
10 -GUARANTEE - The 1200CMB Code Machine is fully guaranteed for one year from the date of purchase, against factory defects in material and workmanship. Mail the Warranty Card to us immediately, to validate your guarantee. Should your machine require factory repairs, it should be packed securely, along with a letter stating clearly what you feel the problem is and returned to the factory.

During the one year warranty period, you will be billed for handling and shipping only. Neither HPC, Inc. nor our distributors have "loaner machines" available.

*Medeco® is a registered trademark of Medeco Security Locks, Inc.

HPC SERVICE CENTER

If the need should arise, please note the following in order to assure you, our customer, of prompt service on your key machine repair:

1. The HPC Service Center answers questions involving key machines and related parts Monday through Friday from 8:00am to 4:30pm Central time.

2. REPAIRS - The preventive maintenance and recalibration of space and depth are the only **repairs** or **adjustments** suggested. Every effort has been made to thoroughly field test every machine for both permanent shop and/or service truck installations. Internal operating mechanisms, while extremely simple in function and design, are **factory repairable only**. Additional repair charges may be incurred by attempting to fix these type of repairs yourself.

3. Parts for repairing any HPC key machine can be purchased directly through the Service Center by calling our toll-free phone number: **1-800-323-3295**. When ordering any parts over the phone, please have a list of the part numbers and descriptions ready to expedite the ordering process. If the parts are needed in a hurry, they can be sent out UPS Next Day Air or 2nd Day Air. There is an extra cost incurred when parts are shipped this way.

4. If you need to send an HPC key machine in for repair, pack the machine securely in a box strong enough to prevent damage during shipping. Also be sure that your machine is equipped with an HPC cutter when it is sent in for repairs. Include a letter explaining exactly what type of problem you are having and any other work you may want done on the machine. Make sure your address and phone number are on the letter as well as the name of someone we can contact if the need arises while repairing your machine. Our shipping address is:

   HPC, Inc.
   Attn. Service Center
   3999 N. 25th Avenue
   Schiller Park, IL 60176

5. The usual method of payment for key machine parts is C.O.D. Other methods of payment include Visa, Mastercard or pre-paying your order with a check. If you wish to have your HPC distributor billed for the cost of repairs, they will have to call in with approval of the billing and a purchase order for the work being done, before the machine is repaired. Unless otherwise specified, key machines that are not under warranty will be shipped C.O.D. via UPS after the repairs have been made.

6. If you wish for the service department to call you with an estimate for repair of your machine, please specify this request in writing.

7. If while inspecting your machine our service department discovers additional problems not listed in your note, a service technician will call you with this information and the estimated charges to repair.

8. If no request is made for HPC to call with a repair estimate, but the cost is expected to exceed $250.00 or 25% of the cost of a new machine, you will be contacted with this information.

9. You will be called if the C.O.D. amount will exceed $250.00.

10. If after informing you of the repair estimate it becomes apparent that the cost will be higher, you will receive a call informing you of the additional charges before any additional work is done.

11. We are sorry, but neither HPC, Inc. nor our distributors have “loaner machines” available.

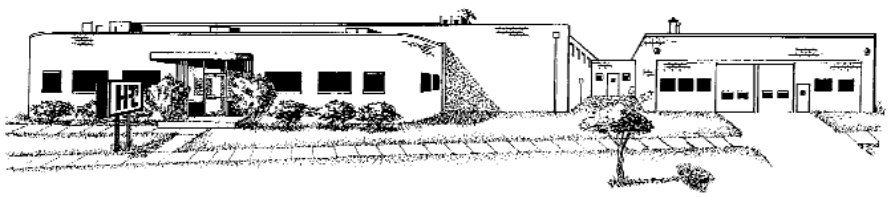
Additional Authorized HPC Service Centers:

EASTERN CANADA:
Eric Ducharme
A.A. & E. Machine Repair
37 Bluebell Circle
Whitby, Ontario L1P1L2

WEST COAST AREA:
Mario Arauz
c/o LaGard, Inc.
3330 Kashiwa Street
Torrance, CA 90505

visit us online at:

www.hpcworld.com



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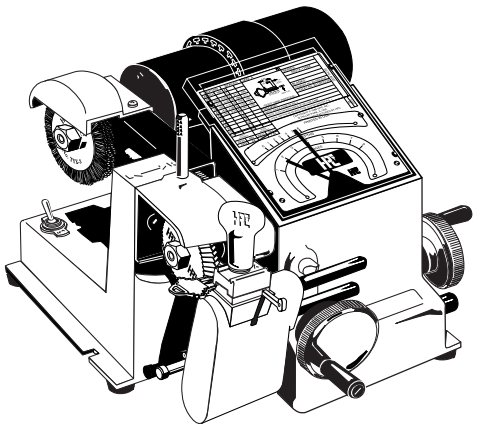
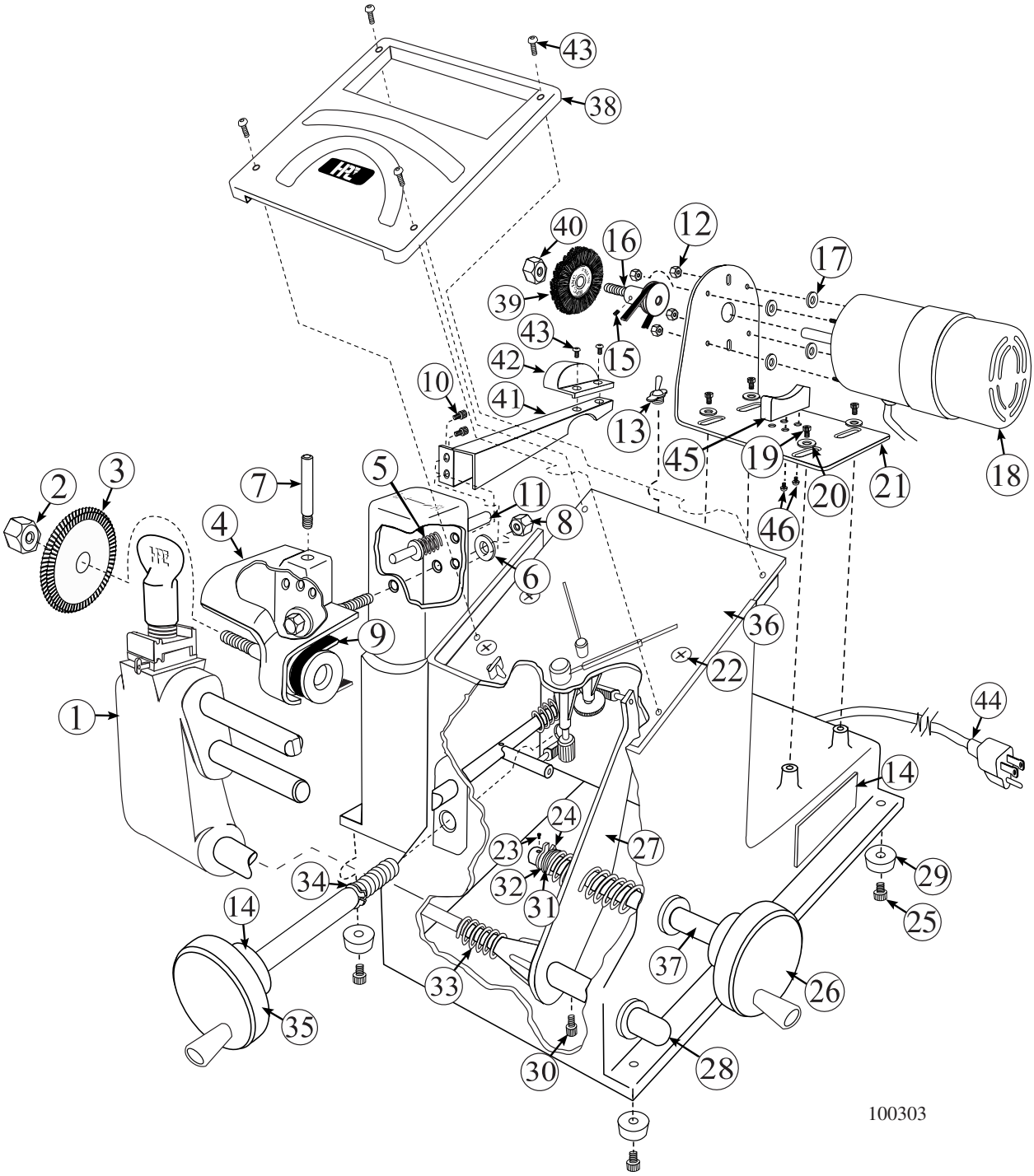
EXPLODED VIEWS & PART LISTINGS



1200CMB Parts Listing

#	Description	Stock #
1.	Pivot Arm Complete	CM1024X
2.	Cutter Nut	CM-1039MA
3.	Cutter	Sold Separately
4.	Cutter Head Assembly	CM1053X
5.	Spring	CM-1079
6.	Washer	CM-50100
7.	Pivot Pin	CM-1043
8.	Hex Nut	CM-50157
9.	Belt	CM-1083MA
10.	Cap Screw	CM-50158
11.	Angle Index Pin	CM-1042
12.	Hex Nut	CM-50148
13.	Toggle Switch	CM-1099MA
14.	Crank Bearing	CM-1045
15.	Set Screw	9100-11
16.	Motor Pulley	CM-1060B
17.	Washer	CM-50149
18.	Motor (110 V)	CM-1080MA
19.	Cap Screw	CM-50167
20.	Washer	CM-50167-1
21.	Motor Mounting Bracket	CM-1040MA
22.	Set Screw	CM-50165
23.	Cotter Pin	CM-62CP
24.	Retaining Ring	CM-50112
25.	Screw	CM-50134
26.	Lateral Crank Complete	CM-1044X
27.	Lateral Rack Bracket	CM-1030
28.	Pivot Arm Shaft	CM-1034
29.	Rubber Foot	CM-50133MA
30.	Dogging Screw	CM-1016
31.	Teflon Washer	CM-1086
32.	Washer	CM-50100
33.	Spring	CM-1098
34.	Retaining Ring	CM-50126
35.	Depth Crank Complete	CM-1026X
36.	Dial Plate Complete	CM-1050
37.	Lateral Feed Shaft	CM-1047B
38.	Lens	CM-1012
39.	Brush	TYX-3
40.	Brush Nut	9150-29
41.	Belt Guard	CM-1014B
42.	Brush Guard	CM-1096B
43.	Screw	CM-50154
44.	AC-Cord	CM-1294MAO
45.	Motor Support	CM-50186
46.	Motor Support Screws (2)	CM-50188

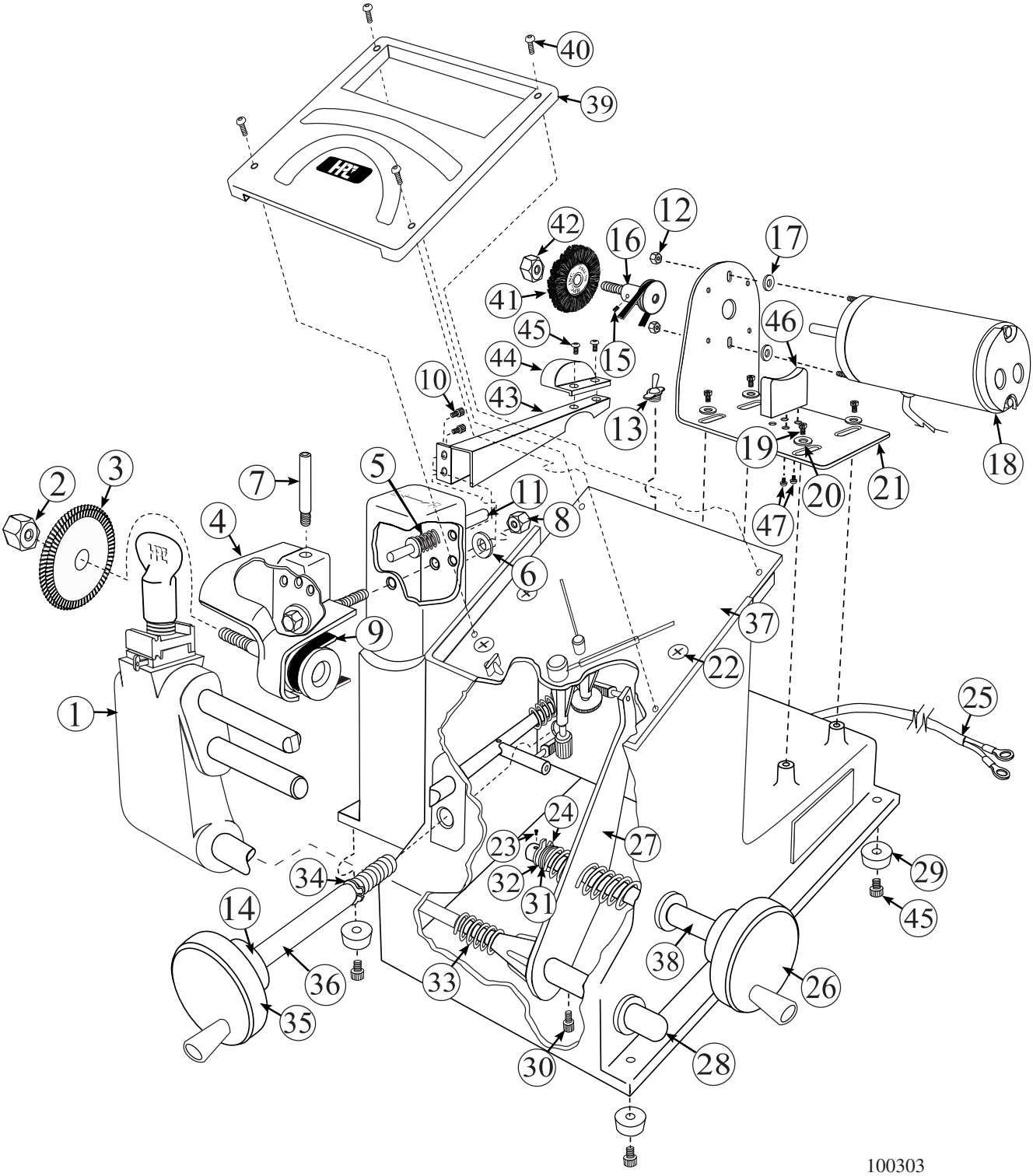
1200CMB



1200CMBDC Parts Listing

#	Description	Stock #
1.	Pivot Arm Complete	CM1024X
2.	Cutter Nut	CM-1039MA
3.	Cutter	Sold Separately
4.	Cutter Head Assy. Complete	CM-1053X
5.	Spring	CM-1079
6.	Washer	CM-50100
7.	Pivot Pin	CM-1043
8.	Hex Nut	CM-50157
9.	Belt	CM-1083MA
10.	Cap Screw	CM-50158
11.	Angle Index Pin	CM-1042
12.	Hex Nut	CM-50148
13.	Toggle Switch	CM-1099MA
14.	Serial Number Tag	N/A
15.	Set Screw	9100-11
16.	Motor Pulley	CM-1060B
17.	Washer	CM-50149
18.	Motor (12 V DC)	DC-MOTOR
19.	Cap Screw	CM-50167
20.	Washer	CM-50167-1
21.	Motor Mounting Bracket	CM-1040MA
22.	Set Screw	CM-50165
23.	Cutter Pin	CM-62CP
24.	Retaining Ring	CM-50112
25.	DC-Cord	DC-CABLE
26.	Lateral Crank Complete	CM-1044X
27.	Lateral Rack Bracket	CM-1030
28.	Pivot Arm Shaft	CM-1034
29.	Rubber Foot	CM-50133MA
30.	Dogging Screw	CM-1016
31.	Teflon Washer	CM-1086
32.	Washer	CM-50100
33.	Spring	CM-1098
34.	Retaining Ring	CM-50126
35.	Depth Crank Complete	CM-1026X
36.	Depth Crank Shaft	CM-1031B
37.	Dial Plate Complete	CM-1050
38.	Lateral Feed Shaft	CM-1047B
39.	Lens	CM-1012
40.	Screw	CM-50154
41.	Brush	TYX-3
42.	Brush Nut	9150-29
43.	Belt Guard	CM-1014B
44.	Brush Guard	CM-1096B
45.	Screw	CM-50134
46.	DC Motor Support	CM-50187
47.	DC Motor Support Screws (2)	CM-50188

1200CMBDC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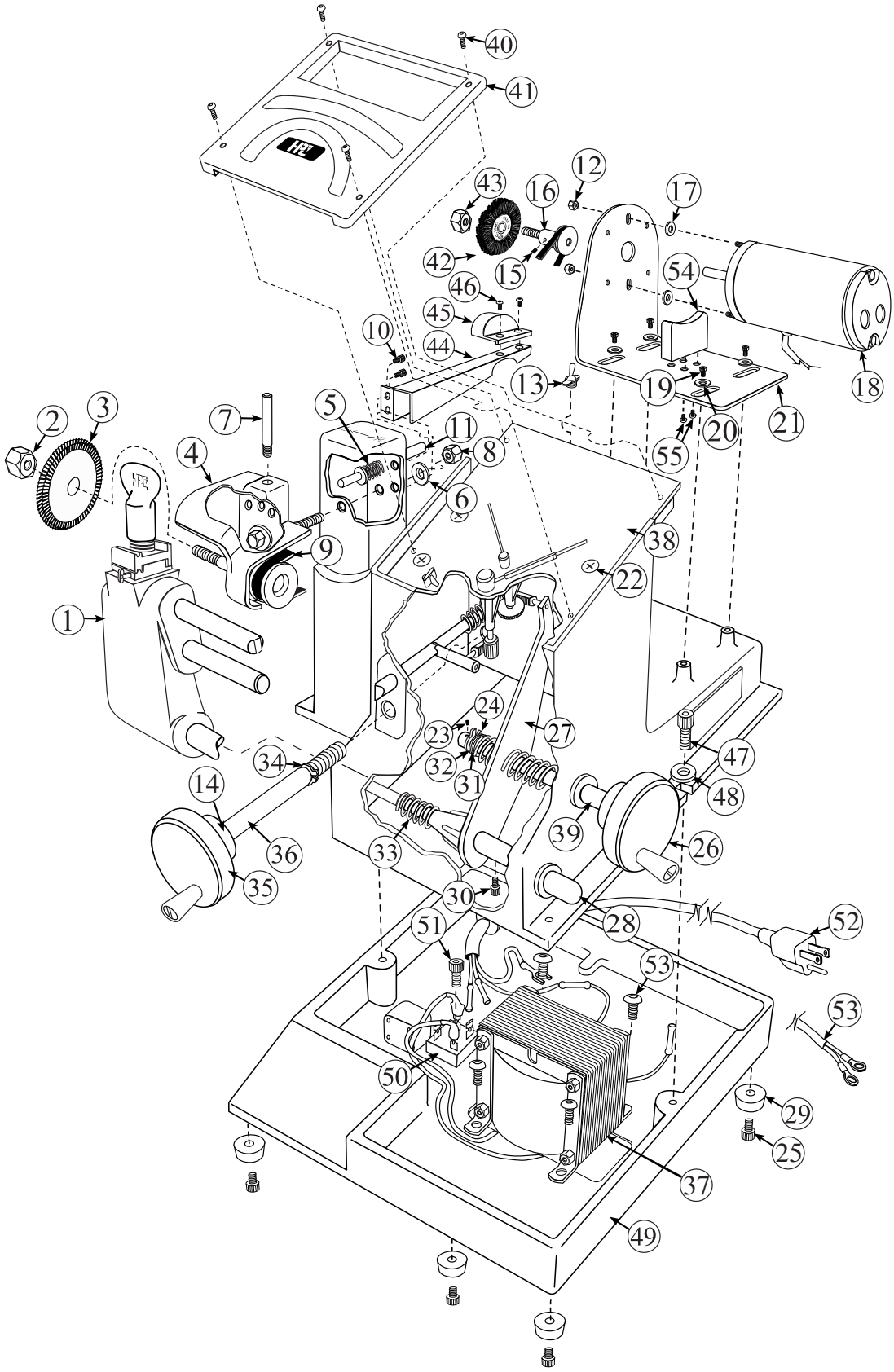
1200CMBACDC Parts Listing

#	Description	Stock #
1.	Pivot Arm Complete	CM1024X
2.	Cutter Nut	CM-1039MA
3.	Cutter	Sold Separately
4.	Cutter Head Assembly Complete	CM1053X
5.	Spring	CM-1079
6.	Washer	CM-50100
7.	Pivot Pin	CM-1043
8.	Hex Nut	CM-50157
9.	Belt	CM-1083MA
10.	Cap Screw	CM-50158
11.	Angle Index Pin	CM-1042
12.	Hex Nut	CM-50148
13.	Toggle Switch	ACDC-SW
14.	Crank Bearing	CM-1045
15.	Set Screw	9100-11
16.	Motor Pulley	CM-1060B
17.	Washer	CM-50149
18.	Motor (12 V DC)	DC-MOTOR
19.	Cap Screw	CM-50167
20.	Washer	CM-50167-1
21.	Motor Mounting Bracket	CM-1040MA
22.	Set Screw	CM-50165
23.	Cotter Pin	CM-62CP
24.	Retaining Ring	CM-50112
25.	Cap Screw	CM-50134
26.	Lateral Crank Complete	CM-1044X
27.	Lateral Rack Bracket	CM-1030
28.	Pivot Arm Shaft	CM-1034
29.	Rubber Foot	CM-50133
30.	Dogging Screw	CM-1016
31.	Teflon Washer	CM-1086
32.	Washer	CM-50100
33.	Spring	CM-1098
34.	Retaining Ring	CM-50126
35.	Depth Crank Complete	CM-1026X
36.	Depth Crank Shaft	CM-1031B
37.	Transformer for ACDC	ACDC-TRANS
39.	Set Screw	CM-50112
38.	Dial Plate Complete	CM-1050
39.	Lateral Feed Shaft	CM-1047B
40.	Screw	CM-50154
41.	Lens	CM-1012
42.	Brush	TYX-3
43.	Screw	CM-50134
44.	Belt Guard	CM-1014B
45.	Brush Guard	CM-1096B
46.	Screw	CM-50177
47.	Cap Screw	9100-28
48.	Washer	CM-50130
49.	Base	CM-1255MAO
50.	Rectifier	ACDC-RECT
51.	Cap Screw	CM-50167
52.	AC Cord	CM-1294MAO
53.	DC-Cord	DC-CABLE
54.	DC Motor Support	CM-50187
55.	DC Motor Support Screws (2)	CM-50188

1200CMBACDC



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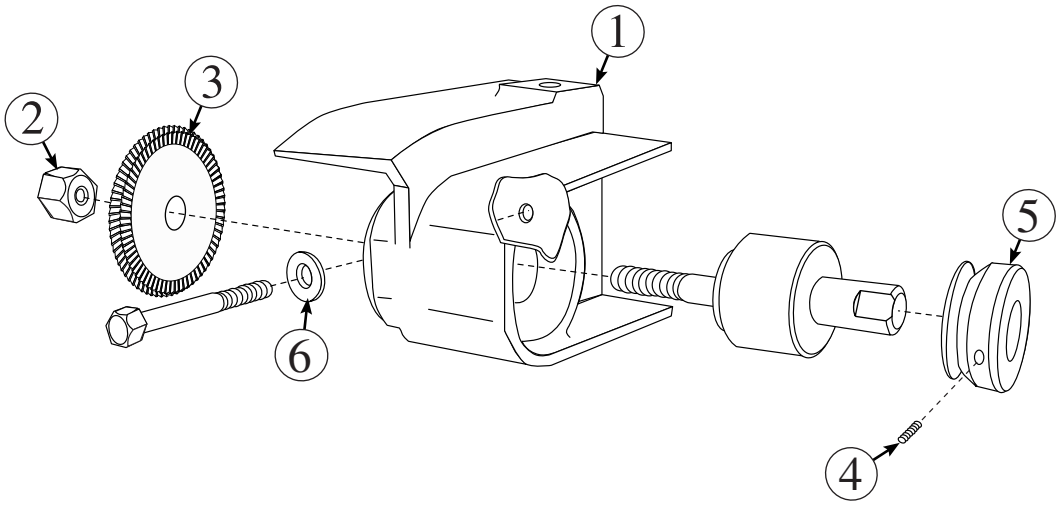
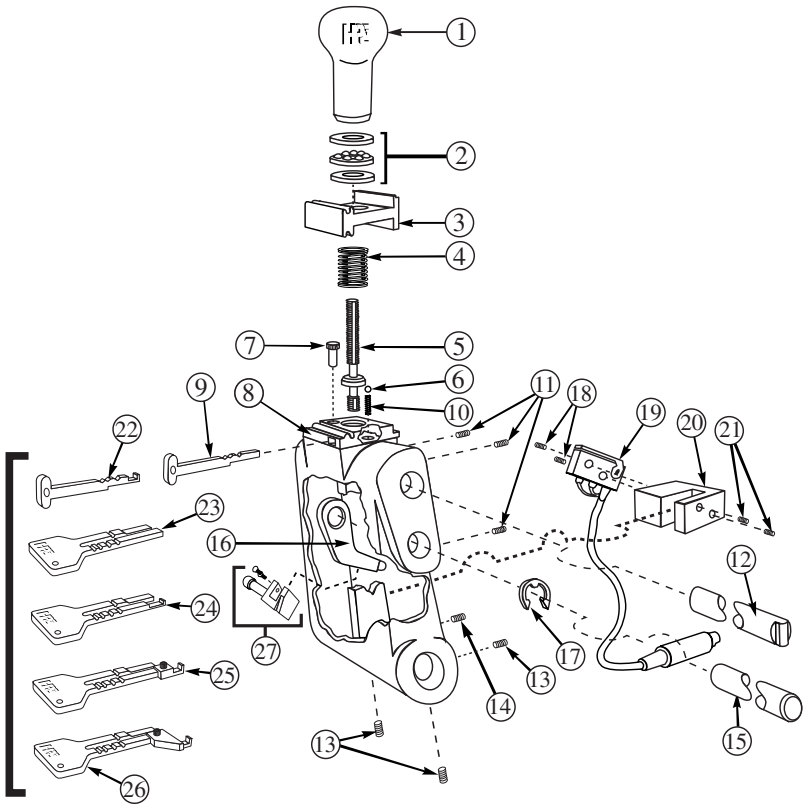
1200CM/1200CMB Cutter Head Assembly



012302

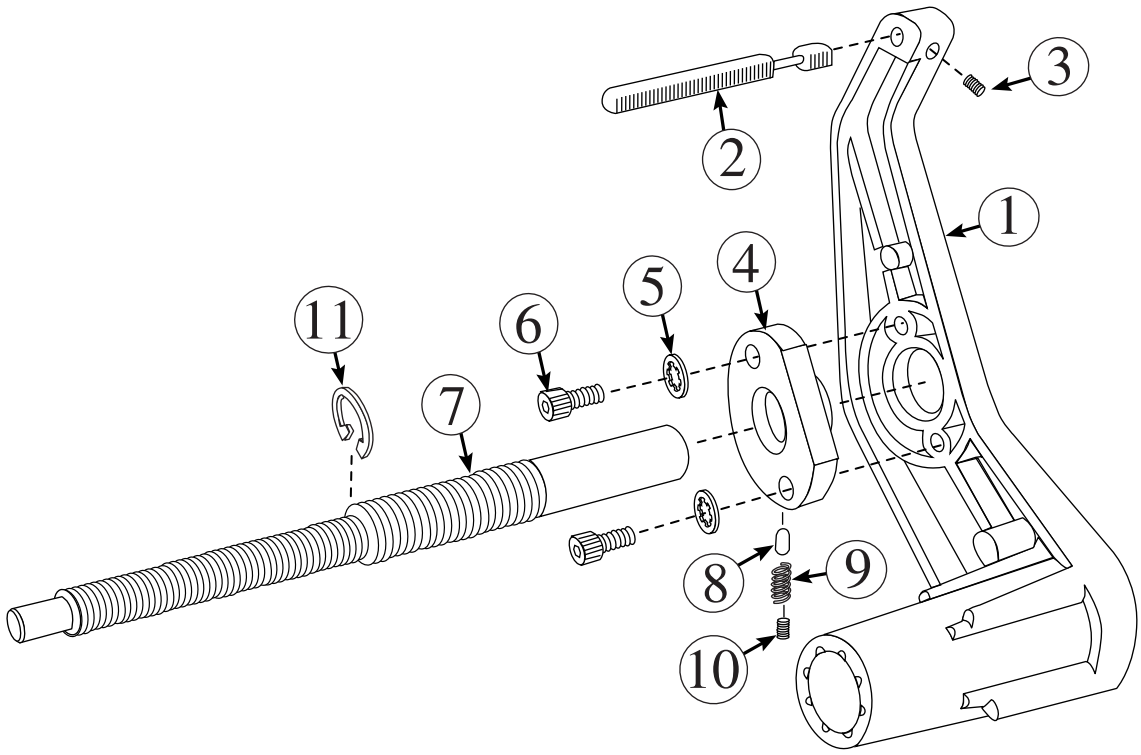
#	Description	Stock #
1.	Cutter Head	CM-1053X (available complete only)
2.	Cutter Nut	CM-1039MA
3.	Cutter	Wide Selection Available
4.	Set Screw	9100-11
5.	Cutter Head Pulley	CM-1059
6.	Washer	CM-50100

1200CM/1200CMB Pivot Arm Assembly



#	Description	Stock #
1.	Wing Nut	SNK-3
2.	Ball Bearing Washer	BBW-2
3.	Top Jaw	CM-1056MA
4.	Spring	CM-1293MA
5.	Stud	CM-1019MA
6.	Ball Bearing	CM-50108
7.	Set Screw	CM-50110
8.	Bottom Jaw (factory installation recommended)	CM-1055MA
9.	Tip Stop	CM-1054MA
10.	Spring	CM-1090MA
11.	Set Screw	CM-50139
12.	Eccentric Shaft	CM-1041
13.	Set Screw	CM-50109
14.	Set Screw	CM-50112
15. & 16	Turn Bar & Shoulder Gauge	CMB-FG
17.	Retaining Ring	CM-50105
18.	2-56 Screw	MAX-92
19.	Shoulder Gauge Wire Assembly	MAX-90
20.	Shoulder Gauge Micro Switch Bracket	MAX-91
21.	6-32 Set Screw	MAX-89
22.	Specialty Tip Stop - Safe Deposit Keys	RT-SD
23.	Horseshoe Tip Stop	CM-1054R
24.	Specialty Tip Stop - Safe Deposit Keys	HT-SD
25.	Specialty Tip Stop - L & F Safe Deposit Box Keys	HT-125
26.	Specialty Tip Stop - L & F Safe Deposit Box Keys	HT-625
27.	Easy Flip	EFLIP-1200

1200CMB Rack Bracket Assembly



012302

#	Description	Stock #
1.	Rack Bracket	CM-1030B
2.	Lateral Rack	CM-1021
3.	Screw	CM-50112
4.	Feed Thread	CM-1037B
5.	Washer	CM-10150
6.	Screw	CM-50116
7.	Lateral Feed Shaft	CM-1047B
8.	Brake Pellet	CM-50180
9.	Spring	CM-50181
10.	Set Screw	CM-50182
11.	Ring	CM-50183