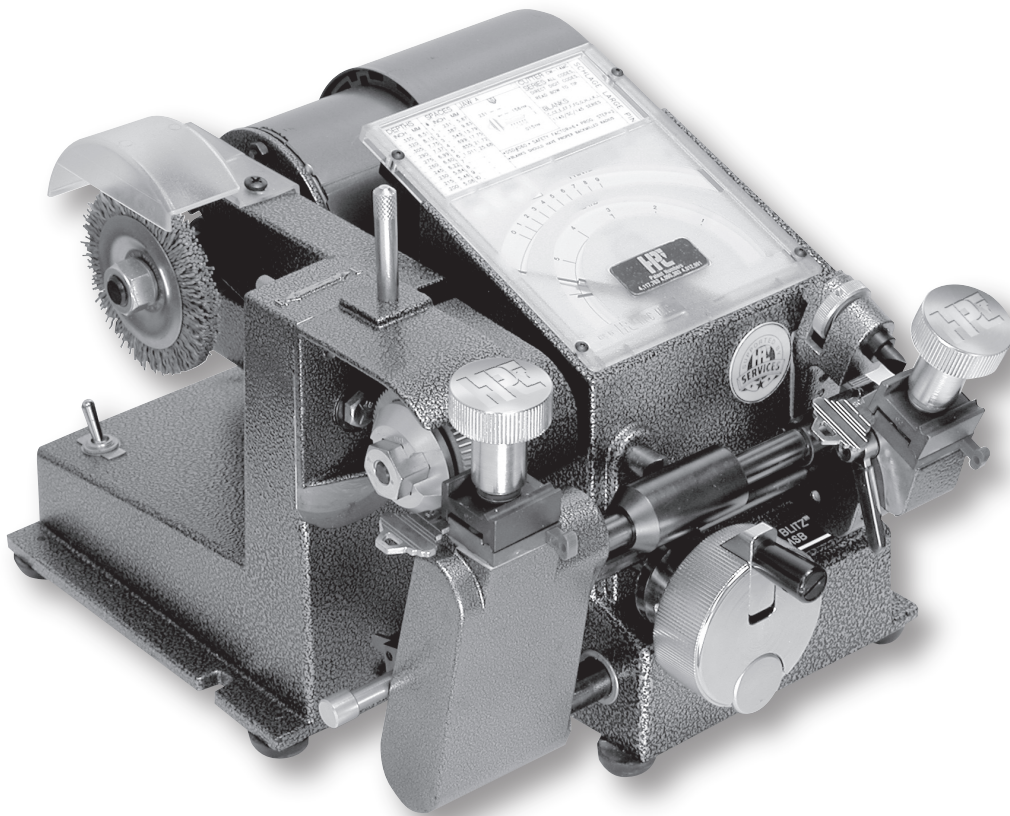


Switch BlitzTM

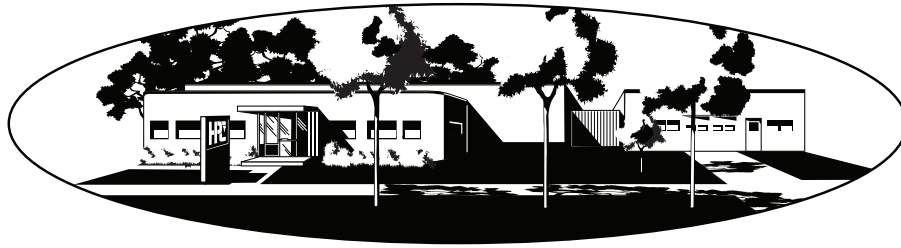
CODE MILLING AND DUPLICATING KEY MACHINE

No. 1233CMSB



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Switch Blitz™
1233CMSB

INTRODUCTION

Switch Blitz™

Thank you for your purchase of the Switch Blitz™ Machine; we appreciate your business.

From its introduction in the 70's, the Blitz™ Machine revolutionized the locksmith industry. Never before had it been so easy to cut keys by code. No more fumbling around with time-consuming depth keys. No more confusing micrometer measurements and complicated machine set-up. The "key" to this revolution was translating the lock manufacturers' depth and space measurements to code cards. Simply insert the code card for the lock you are using, set the space needle to the number 1 mark on the card, and set the depth needle to the appropriate depth for the cut required. Next, move the space needle to the second space, and move the depth needle to the appropriate number for this cut. Continue this simple procedure to cut a new key (to the manufacturer's exact specifications) in less than 1 minute. The innovative design of the Blitz™ Machine earned it three U.S. Patents. It became the best selling code machine - the standard of the industry that everyone wanted to copy.

The Blitz™ Machine is an integral piece of virtually every locksmith business. In addition to cutting by code, every locksmith has to duplicate keys and has one or more duplicators. Often the machine of choice is the HPC Trace-A-Key® semi-automatic duplicator, judged to be the fastest and most accurate duplicator on the market. The most common request, especially among mobile locksmiths, was the desire for their code machine and duplicator to use less bench space. This inspired the engineers at HPC to combine the best code machine with the best semi-automatic duplicator; and in July 2003 HPC introduced the Switch Blitz™. Now in the bench space of one machine you have two top-quality key machines. The brilliant design and engineering makes the switch from code cutting to duplicating as simple as 1, 2, 3.

Thank you again for your new purchase. We are confident this machine will provide years of keycutting perfection.

HPC, Inc.
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Schiller Park, IL 60176 USA
Tel: 847.671.6280
Fax: 847.671.6343
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PRODUCT PACKAGING CHECKLIST

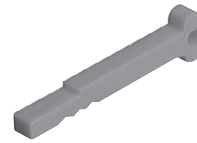
Accessories Included:



Binder With Storage Panels and Scratch Pad
(CARD-SB and CARD-BP)



Standard Cutter Nut
(CM-1039MA)



(2) Red Tip Gauges
(CM-1054MA)



(2) Horseshoe Tip Gauges
(CM-1054R)



Standard Cutters
(CW-1011, CW-14MC, CW-6010)



Code Card Deck
(DECK-150)



Key Gauging Shim
(KBPS-1)



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

OPTIONAL ACCESSORIES:



Carrying Case
(1200 CASE)



Storage Panel
(CARD-BP)



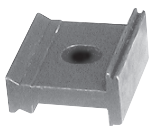
HPC Software



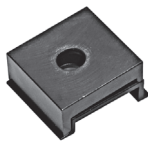
Tip Gauges
(HT-125, HT-625, HT-SD, RT-SD)



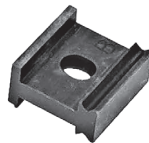
Key Decoder
(HKD-75)



Medeco® Jaw
(MJ-1)



Medeco KeyMark® Jaws
(MJ-2)



Medeco® 3 Freedom Jaws
(MJ-3)



Schlage PRIMUS® Jaw
(SPJ-1)



HPC Cutters



Switch Blitz™
Tibbe Key Adapter Kit
TIBBE-SWITCH



Switch Blitz™
Tubular Key Adapter Kit
(TKA-SWITCH)



Calibration Kit
(CMB-CK)



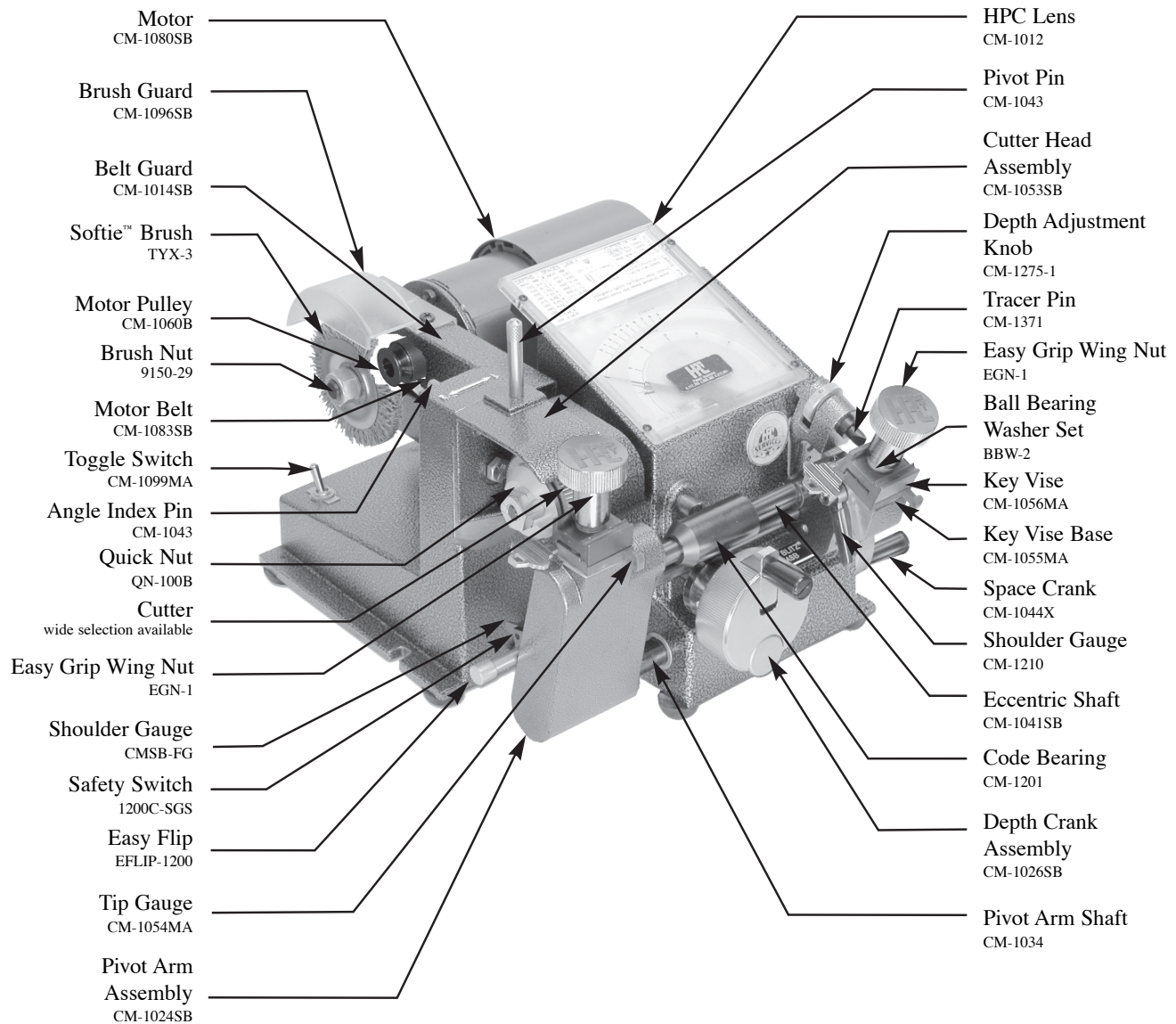
Spacer Washer
(SPR-5)

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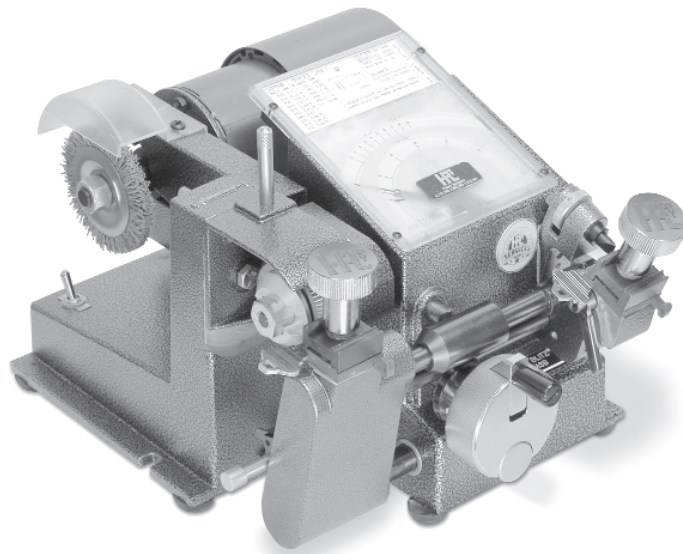
SWITCH BLITZ™

PARTS DESIGNATION CHART

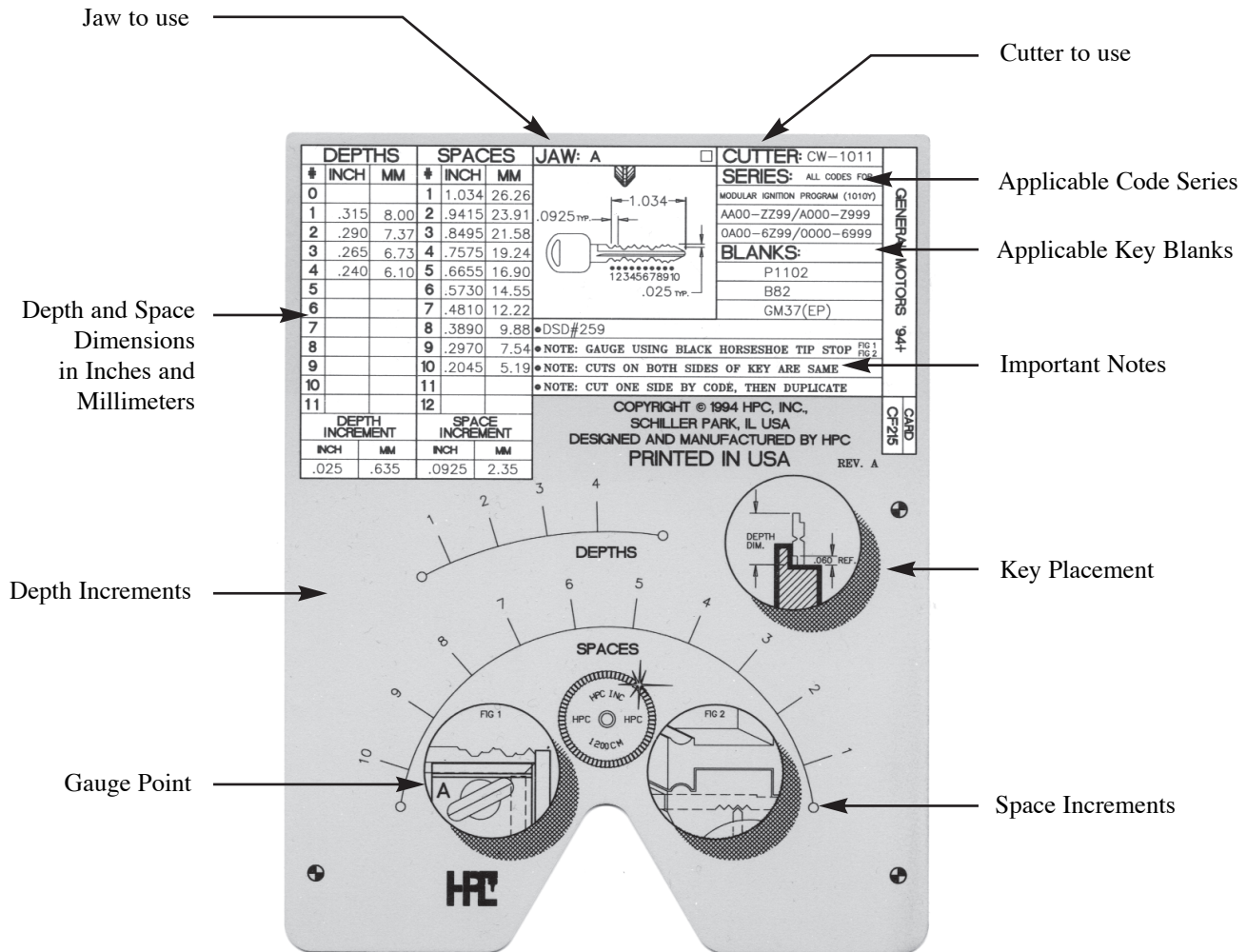


1.0

CODE CARDS



1.1 CODE CARDS



The Code Cards include all key cutting information.

1200CMB SERIES CODE CARDS AVAILABLE FROM HPC

No. DECK-150

Included with 1200CMB and 1233CMSB machines.

DESCRIPTION	CARD NO.	CUTTER
American Motors (D, E, K, L)	.C1	CW-1011
Arrow, Large Pin	.C2	CW-14MC
Arrow (A2)/Best/Falcon/Eagle	.C3	CW-90MC*
Briggs & Stratton Disc (Gas Cap)	.C4	CW-1011
Chicago/Fort Single-Sided Disc	.C5	CW-1011
Chicago Pin	.C6	CW-1011
Chrysler Pin (1969+)	.C10	CW-1011
Corbin Disc	.C11	CW-1011
Corbin Small Pin	.C12	CW-1011
Dexter Large Pin (1969+)	.C16	CW-14MC
Eagle Small Pin Long Space	.C20	CW-20FM*
Eagle Large Pin	.C21	CW-14MC
Ford 5-Pin Double-Sided (1965+)	.C24	CW-14MC
General Motors Wafer (1936+)	.C25	CW-1011
Hudson Small Pin	.C26	CW-1011
Ilco Small Pin	.C27	CW-1011
Ilco & Lockwood Large Pin	.C28	CW-14MC
Illinois/Timberline Single-Sided Disc	.C29	CW-1011
American Small Pin	.C30	CW-1011
Kwikset Large Pin	.C31	CW-14MC
Kwikset Titan	.C31X	CW-1011
Master Small Pin (7K)	.C34	CW-1011
Master Standard Large Pin (1K)	.C35	CW-1011
Medeco Standard (.030 inc.)	.C36	CW-1012*
National Cabinet Single-Sided Disc	.C37	CW-1011
National Cabinet Small Pin Standard	.C39	CW-1011
National Large Pin	.C40	CW-14MC
Russwin Large Pin (not system 70)	.C41	CW-90MC*
Russwin D&H Pre-System 70	.C42	CW-90MC*
Sargent Large Pin	.C44	CW-20FM*
Schlage Large Pin	.C45	CW-14MC
Segal Large Pin	.C46	CW-14MC
Taylor Small Pin	.C48	CW-1011
Taylor Large Pin	.C49	CW-14MC
Falcon/Weiser Large Pin	.C50	CW-14MC
Welch Large Pin	.C51	CW-20FM*
Weslock Large Pin/Vanguard	.C52	CW-14MC
XL Lock Letterbox (X, K Series)	.C53	CW-1011
Yale Disc	.C55	CW-1011
Yale Small Pin	.C56	CW-1011
Yale Large Pin	.C57	CW-14MC
Master Pro Series 2001+	.C103A	CW-1011
Dom 2H (44) Double-Sided	.C104	CW-1011
Dom 2C (17) Single-Sided	.C105	CW-1011
National Cabinet Lock Letterbox	.C107	CW-1011
Abus Diskus Rekeyable	.C112	CW-1011
Lori L10 IC	.C115	CW-90MC*
Schlage Everest IC	.C116	CW-90MC
Alfa Flexcore	.C345	CW-90MC*
ASSA Twin 6000	.CEX1	CW-32MC*
VW (plain/shoulder side)	.CF3	CW-1011
Audi/Porsche/VW	.CF4	CW-1011
Volvo/VW (Gas Cap)	.CF8	CW-1011
Ford Capri/Fiesta/Jaguar	.CF11	CW-1011
Merkur (German Ford) (1985-1989)	.CF13	CW-1011
BMW/Mercedes (11-Wafer) (1975+)	.CF34	CW-1011
Porsche (911-912)	.CF36	CW-1011
Datsun/Mazda/Triumph/Jaguar	.CF40	CW-1011
British Autos & Cycles	.CF43	CW-1011
Ford Cargo Truck (1986+)/Sterling	.CF48	CW-1011
Jaguar XJ6 (10-Disc) (1988+)	.CF49	CW-1011
Volvo/ MG Primary & Secondary	.CF51	CW-1011
Volvo 240, 740, 760	.CF52	CW-1011
Saab (1974+)	.CF56	CW-1011
Datsun/Subaru/Nissan (FM,N,W)	.CF60	CW-1011
Ford/Mazda Truck	.CF63	CW-1011
Mazda (1970-1980)	.CF64	CW-1011
Ford/Mercury/Mazda	.CF65	CW-1011
Datsun/Subaru/GMC/Nissan (8-Disc)	.CF67	CW-1011

Ford/Mazda MPV Minivan 10-Cut	.CF68	CW-1011
Honda Ignition (thru '76)		
2001-4949	.CF70	CW-1011
Honda Door/Trunk (thru '76)z		
Series 111111-444444	.CF71	CW-1011
Acura (1986+)/Honda (1982+)	.CF73	CW-1011
Acura (1990+)/Honda (1988+)	.CF74	CW-47MC*
Hyundai/Toyota/Isuzu/Mitsubishi	.CF80	CW-1011
Chevy Luv (B)/Toyota (1969+)	.CF81	CW-1011
Toyota (unlettered) (1969+)	.CF82	CW-1011
GM-Chevy/Isuzu/Mitsubishi	.CF85	CW-1011
GM-Chevy Nova (R,S)	.CF86	CW-1011
Toyota 8-Disc	.CF87	CW-1011
Toyota/Geo/Isuzu/Suzuki	.CF88	CW-47MC*
Geo Tracker/Suzuki Sidekick/Isuzu	.CF89	CW-1011
Fiat Ignition (1967+)	.CF90	CW-1011
Fiat Secondary	.CF91	CW-1011
Fiat Strada (1979-1980)	.CF94	CW-1011
Fiat Strada (1981+)	.CF96	CW-1011
Iveco Truck (P, Z)	.CF99	CW-1011
Chrysler/Renault/Peugeot (Primary)	.CF100	CW-1011
Chrysler/Renault (Secondary)	.CF101	CW-1011
Chrysler/Renault (Secondary)	.CF102	CW-14MC
Chrysler/Renault/Peugeot	.CF114	CW-1011
Chrysler/Renault/Peugeot/Eagle	.CF118	CW-1011
Eagle Premier Ignition (1988+)	.CF119	CW-47MC*
Hyundai-U.S. (X-Series) (1986+)	.CF201	CW-1011
Yugo Secondary (Z)	.CF202	CW-1011
Yugo Secondary (G)	.CF203	CW-1011
GM-Allante (1987+)	.CF204	CW-1011
GM-Pontiac LeMans (S) (1988+)	.CF205	CW-1011
GM-Cavalier (1991+)/"N" Body (1992+)	.CF206	CW-1011
GM-Saturn	.CF207	CW-1011
Geo Prizm/Toyota Camry/Corolla	.CF208	CW-1011
Toyota Corolla Wagon (1993+)	.CF209	CW-1011
Hyundai Sonata	.CF211	CW-1011
GM (1994+) Modular Ignition Program	.CF215	CW-1011
Kia 2003	.CF236	CW-47MC*
Kia/Hyundai 7-Cut (X,Y Series)	.CF301	CW-1011
Hyundai 8-Cut (S,T Series)	.CF302	CW-47MC*
Ford Aspire (Kia) 10-Cut (B Series)	.CF303	CW-1011
Nissan Pathfinder 96+	.CF304	CW-1011
Kia Sephia 98+	.CF305	CW-1011
Mitsubishi Galant 8-Cut 99+	.CF306	CW-1011
Toyota 2001	.CF307	CW-47MC*
Honda Motorcycle ('76-'82)	.CMC30	CW-1011
Honda Cycles (1983+)	.CMC37	CW-1011
Kawasaki Cycles (1979+)	.CMC50	CW-1011
Kawasaki 7-Cut (A,B Series)	.CMC51A	CW-1011
Kawasaki Cycles 93+	.CMC51B	CW-1011
Suzuki Cycle 101-499 Series	.CMC70	CW-1011
Suzuki Cycles (1988+)	.CMC71	CW-1011
Yamaha Cycles (1981+)	.CMC80	CW-1011
Yamaha Cycle 77-86	.CMC81	CW-1011
Kaba Peaks (140) (6-Pin) (A2)	.CPKS1	CW-90MC*
Kaba Peaks (150) (6- & 7-Pin) (A2)	.CPKS2	CW-90MC*
Medeco Biaxial	.CSP3	CW-1012*
Medeco® Biaxial 60-Series	.CSP4	CW-1012*
Corbin/Russwin/Emhart (system 70)	.CX1	CW-1013*
Master Super Large	.CX2	CW-90MC*
Medeco Small Pin (thin head)	.CX3	CW-1012*
Corbin (system 70) (X-class/27-99)	.CX5	CW-90MC*
Corbin/Russwin/Emhart (system 70)	.CX6A	CW-90MC*
Russwin (system 70) (K,N) (1977+)	.CX7	CW-90MC*
Best Falcon Eagle Arrow IC A3 (.018 inc.)	.CX10	CW-90MC*
Best Falcon Eagle Arrow IC A4 (.021 inc.)	.CX11	CW-90MC*
Chicago/Steelcase Small Pin	.CX14	CW-1011
Hudson Disc	.CX32	CW-1011
Ford 10-Cut	.CX56	CW-1011
LSDA (Taiwan) Large Pin	.CX58	CW-14MC

NOTE: All code cards are available separately.

* These cutters are not supplied with the 1200CMSB.



No. DECK-150 continued

DESCRIPTION	CARD NO.	CUTTER
Chrysler Double-Sided (1989-1992)	CX59	..CW-1011
Chrysler Double-Sided (1993+)	CX60	..CW-1011
Ford Eight Cut (96+)	CX101	..CW-1011
Chrysler 98 8-Cut	CX102	..CW-1011
Saturn 2003+	CX263	..CW-1011

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	

Safe Deposit Deck (No. DECK-SD12)

Deck includes RT-SD, HT-SD & SPR-5.

DESCRIPTION	CARD NO.	CUTTER
Diebold 175-05 Renters	CSD1	..CW-EC*

In addition to the cutter specified, the following manufacturers require the CW-45SMS cutter.

LeFebure 7300, 7700 Renters	CSD20	..CW-FC*
Mosler M5700, M3175 Flat Renters	CSD30	..CW-FC*
Mosler M5700 Corrugated Renters	CSD31	..CW-FC*
Mosler M5700, M3175 Flat/	CSD36	..CW-FC*
Corrugated Guard		
S&G 4400, 4231 Renters	CSD40	..CW-CC*
S&G 4400 Guard	CSD41	..CW-CC*
S&G 158/159 Renters	CSD47	..CW-DC*
Yale B Series Renters	CSD50	..CW-CC*
Yale 3300 Renters	CSD51	..CW-CC*
Lloyd Matheson Renters	CSD80	..CW-CC*
(Ilco/Precision P40)		
Lloyd Matheson Guard	CSD81	..CW-CC*
(Ilco/Precision P40)		

Vehicle Deck (No. DECK-VH12)

DESCRIPTION	CARD NO.	CUTTER
Honda Ignition (thru '76) Series		
(2001-4949)	CF70	..CW-1011
Honda Door/Trunk (thru 1976)		
(Series 111111-444444)	CF71	..CW-1011
Kia/Hyundai 7-Cut (X,Y Series)	CF301	..CW-1011
Hyundai 8-Cut (S,T Series)	CF302	..CW-47MC*
Ford Aspire (Kia) 10-Cut (B Series)	CF303	..CW-1011
Nissan Pathfinder 96+	CF304	..CW-1011
Honda Motorcycle ('76-'82)	CMC30	..CW-1011
Kawasaki 7-Cut (A,B Series)	CMC51A	..CW-1011
Suzuki Cycle 101-499 Series	CMC70	..CW-1011
Yamaha Cycle 77-86	CMC81	..CW-1011
Ford Eight Cut (96+)	CX101	..CW-1011
Chrysler 98 8-Cut	CX102	..CW-1011

Master Keying Deck (No. DECK-MK17)

DESCRIPTION	CARD NO.	CUTTER
Assa 500 A Masterkeyed	C347	..CW-105*
Assa 500 B Masterkeyed	C348	..CW-105*
Assa 500 C Masterkeyed	C349	..CW-105*
Assa 700 A Masterkeyed	C350	..CW-105*
Assa 700 B Masterkeyed	C351	..CW-105*
Assa 700 C Masterkeyed	C352	..CW-105*

The following cards allow you to use standard pin kits to master key these manufacturers in .015" increments.

Arrow New Large Pin	CMK2	..CW-14MC
Corbin X Class	CMK13	..CW-14MC
Corbin Z Class Pre-System 70	CMK14	..CW-14MC

Kwikset	CMK31	..CW-14MC
Lockwood	CMK33	..CW-14MC
Russwin K&N	CMK41	..CW-14MC
Sargent Sectional	CMK44	..CW-14MC
Weiser/Falcon	CMK50	..CW-14MC
Weslock	CMK52	..CW-14MC
Yale Large Pin	CMK57	..CW-14MC
General Large Pin	CMKX8	..CW-14MC

Other

DESCRIPTION	CARD NO.	CUTTER
Corbin Pre-System 70 X-Class	C13	..CW-90MC*
(27, 57, 67, 77 Series + 97, 99, AR, BL, BR)		
Corbin Pre-System 70 Z-Class	C14	..CW-90MC*
(59 Series 60/70 & L Series)		
Master Pro Series (6000K/7000K)	C103	..CW-1011
Winkhaus 7H High Security	C106	..CW-1011
Assa 500 A	C346	..CW-105*
Assa 500 B	C353	..CW-105*
Assa 700 A	C356	..CW-105*
Assa 700 B	C357	..CW-105*
Strattec Tool Box, Office Furniture	C385	..CW-1011
TrioVing	C419	..CW-14MC
Russwin 852 Class	C852	..CW-90MC*
Russwin 981 Class	C981	..CW-90MC*
Medeco Half Step	CX4	..CW-1012*
Yale Large Pin	CX9	..CW-14MC
Russwin A Class	CX12	..CW-90MC*
Russwin 752	CX13	..CW-90MC*
Arco Rifkin Bank Bags	CX18	..CW-1011
Lori 80	CX27	..CW-90MC*
Corbin Wide Key	CX49	..CW-14MC
Lockwood	CX57	..CW-14MC
Tibbe	C2093	..CW-95*
Tubular	CTK1	..CW-128C*

Private Label

DESCRIPTION	CARD NO.	CUTTER
LSDA "LSA" Keyway	C101	..CW-90MC*
Clark Platinum Keyway	C102C	..CW-14MC
USCAN "Locksmith" Keyway	C108H	..CW-14MC

Make-up Deck (No. DECK-30)

DECK-30 is made up of all the following cards.
Included with 1200CMB Blitz™ machines since
January 2004 and all 1233CMSB Switch Blitz™ machines.

DESCRIPTION	CARD NO.	CUTTER
Master Pro Series 2001+	C103A	..CW-1011
Dom 2H (44) Double-Sided	C104	..CW-1011
Dom 2C (17) Single-Sided	C105	..CW-1011
National Cabinet Lock Letterbox	C107	..CW-1011
Lori L10 IC	C115	..CW-90MC*
Schlage Everest IC	C116	..CW-90MC*
Alfa Flexcore	C345	..CW-90MC*
Honda Ignition (thru '76)		
2001-4949	CF70	..CW-1011
Honda Door/Trunk (thru '76)z		
Series 111111-444444	CF71	..CW-1011
Kia 2003	CF236	..CW-47MC*
Kia/Hyundai 7-Cut (X,Y Series)	CF301	..CW-1011
Hyundai 8-Cut (S,T Series)	CF302	..CW-47MC*
Ford Aspire (Kia) 10-Cut (B Series)	CF303	..CW-1011
Nissan Pathfinder 96+	CF304	..CW-1011
Kia Sephia 98+	CF305	..CW-1011
Mitsubishi Galant 8-Cut 99+	CF306	..CW-1011
Toyota 2001	CF307	..CW-47MC*
Honda Motorcycle ('76-'82)	CMC30	..CW-1011
Kawasaki 7-Cut (A,B Series)	CMC51A	..CW-1011
Kawasaki Cycles 93+	CMC51B	..CW-1011

NOTE: All code cards are available separately.

* These cutters are not supplied with the 1200CMSB.



No. DECK-30 (continued)

DESCRIPTION	CARD NO.	CUTTER
Suzuki Cycle 101-499 Series	CMC70	CW-1011
Yamaha Cycle 77-86	CMC81	CW-1011
Master Super Large	CX2	CW-90MC*
Best Falcon Eagle Arrow 1C A3 (.018 inc.)	CX10	CW-90MC*
Best Falcon Eagle Arrow 1C A4 (.021 inc.)	CX11	CW-90MC*
Ford Eight Cut (96+)	CX101	CW-1011
Chrysler 98 8-Cut	CX102	CW-1011
Saturn 2003+	CX263	CW-1011

Make-up Deck (No. DECK-25)

DECK-25 is made up of all the following cards.
Included with 1200CMBX Extreme Blitz™ machines.

DESCRIPTION	CARD NO.	CUTTER
Arrow New Large Pin	CMK2	CW-14MC
Corbin X Class	CMK13	CW-14MC
Corbin Z Class Pre-System 70	CMK14	CW-14MC
Kwikset	CMK31	CW-14MC
Lockwood	CMK33	CW-14MC
Russwin K&N	CMK41	CW-14MC
Sargent Sectional	CMK44	CW-14MC

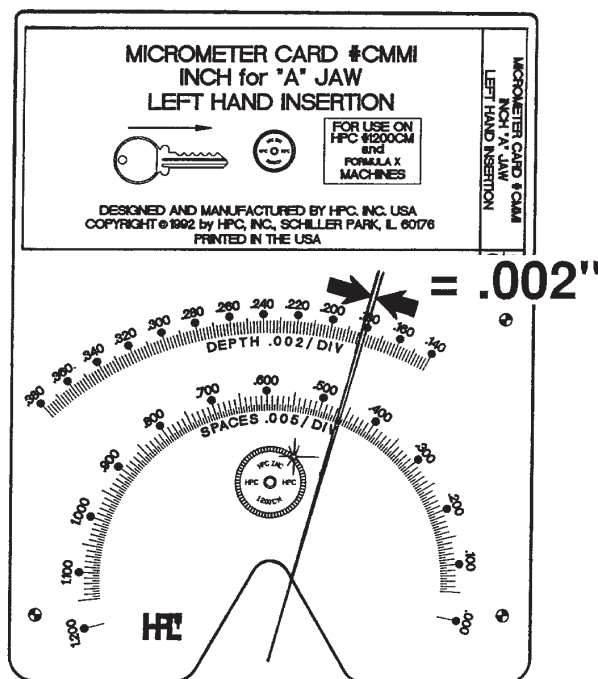
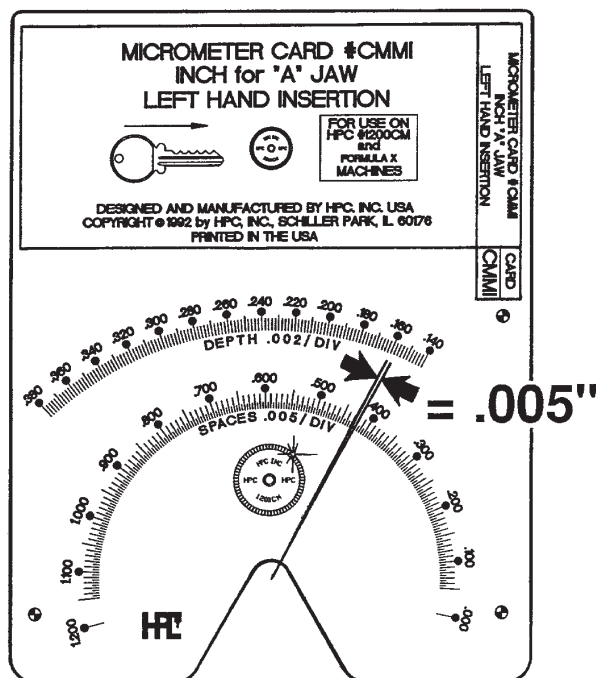
No. DECK-25 (continued)

DESCRIPTION	CARD NO.	CUTTER
Weiser/Falcon	CMK50	CW-14MC
Weslock	CMK52	CW-14MC
Yale Large Pin	CMK57	CW-14MC
General Large Pin	CMKX8	CW-14MC
Corbin Pre-System 70 X-Class (27, 57, 67, 77 Series + 97, 99, AR, BL, BR)	C13	CW-90MC*
Corbin Pre-System 70 Z-Class (59 Series 60/70 & L Series)	C14	CW-90MC*
Winkhaus 7H High Security	C106	CW-1011
Strattec Tool Box, Office Furniture	C385	CW-1011
TrioVing	C419	CW-14MC
Russwin 852 Class	C852	CW-90MC*
Russwin 981 Class	C981	CW-90MC*
Yale Large Pin	CX9	CW-14MC
Russwin A Class	CX12	CW-90MC*
Russwin 752	CX13	CW-90MC*
Arco Rifkin Bank Bags	CX18	CW-1011
Lori 80	CX27	CW-90MC*
Corbin Wide Key	CX49	CW-14MC
Lockwood	CX57	CW-14MC

HPC's Switch Blitz™ uses the same code cards as HPC's Blitz™.

1.3 STORAGE - When not in use, the Code Cards should always be returned to the four 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.





MICROMETER CARDS

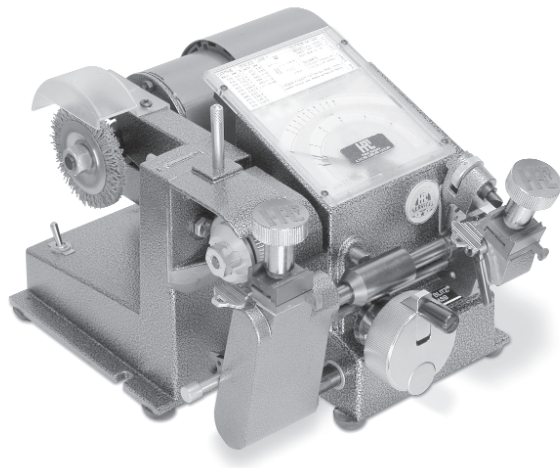
CMMI	Micrometer Card "A" Jaw (inch)
CMBI	Micrometer Card "B" Jaw (inch)
CMRM	Micrometer Card "A" Jaw (red tip-metric)
CMRT	Micrometer Card "A" Jaw (red tip-inch)
CMHM	Micrometer Card "A" Jaw (black tip-metric)
CMHT	Micrometer Card "A" Jaw (black tip-inch)
CMMM	Micrometer Card "A" Jaw (metric)
CMBM	Micrometer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

Universal micrometer cards allow you to cut keys to any space 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.

2.0

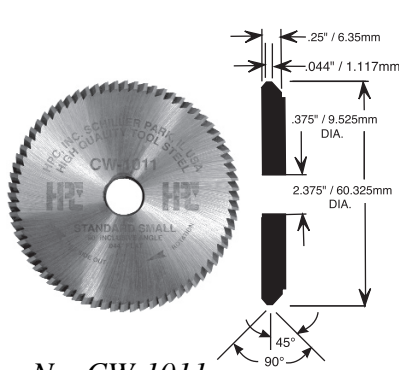
CUTTERS



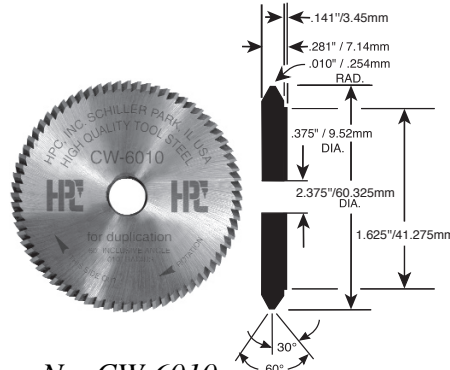
2.1 Available Cutters:

CUTTERS SUPPLIED

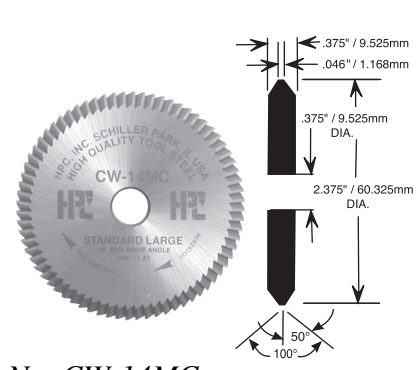
The correct cutter to be used is printed on each code card. One of the important features of this machine, is its ability to maintain correct depths and spaces with virtually no set-up time involved, even when changing cutters. This feature is reliant upon using cutters whose outside diameters are matched and equal.



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



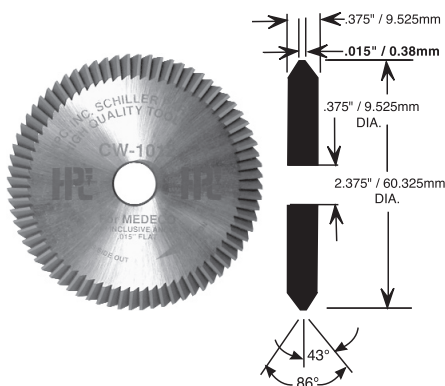
No. CW-6010
90° angle, small cylinder cutter.



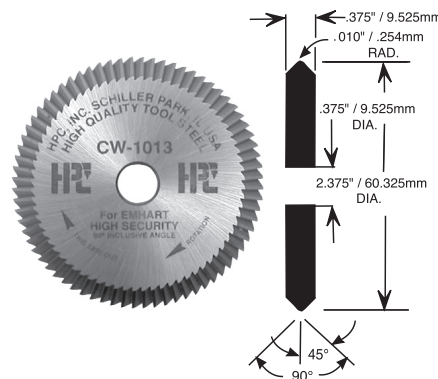
No. CW-14MC
100° angle, standard large cylinder cutter.
No. CW-14MCC Carbide

The Switch Blitz™ is supplied with three high speed steel 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 CW-6010 is designed for large-volume key duplication.

OPTIONAL CUTTERS



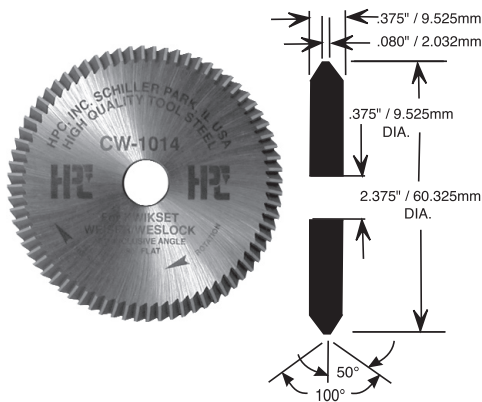
No. CW-1012
Optional milling cutter has angle and pin seat for cutting Medeco® High Security.



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

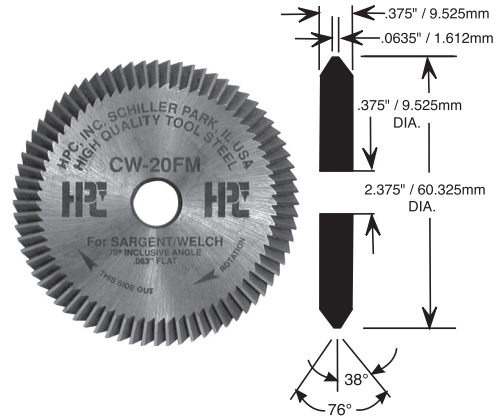
Medeco® is a registered trademark of Medeco Security Locks, Inc.

OPTIONAL CUTTERS CONTINUED



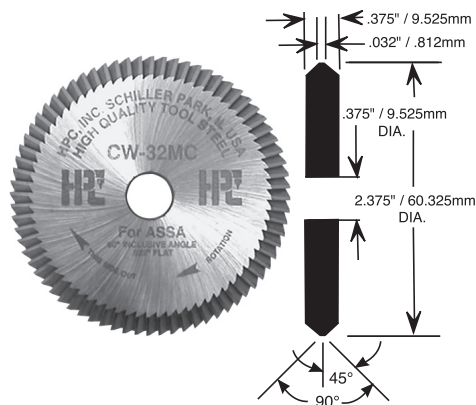
No. CW-1014

This specially designed cutter has .080 flat for one step cutting of Kwikset, Weslock, & Weiser using original pins.



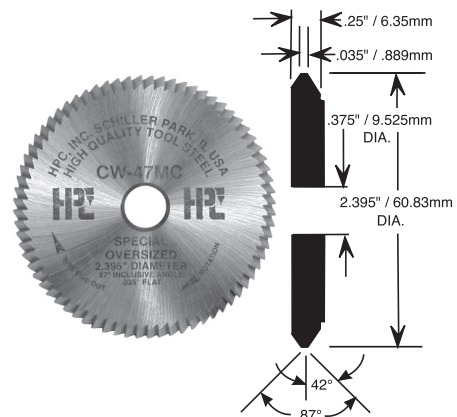
No. CW-20FM

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.

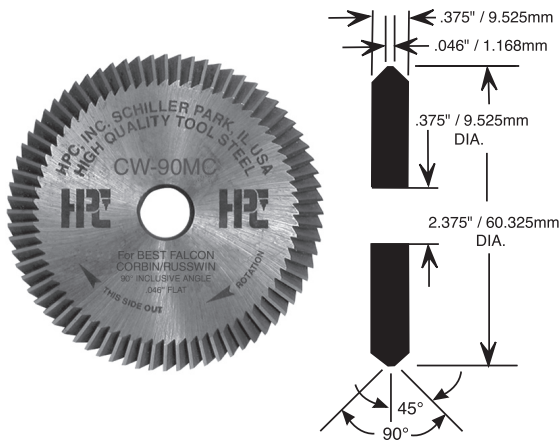


No. CW-47MC

87° angle, tool steel cutter for some automotive.

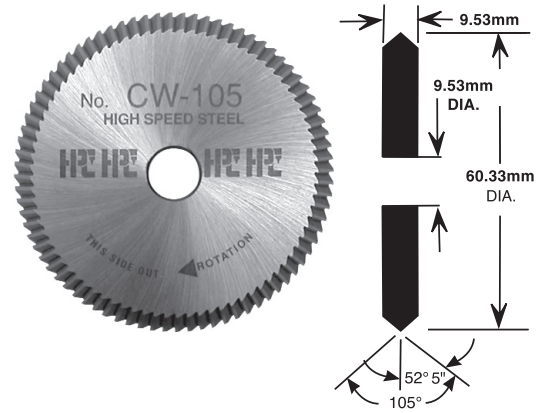
No. CW-47MCC Carbide

OPTIONAL CUTTERS CONTINUED



No. CW-90MC

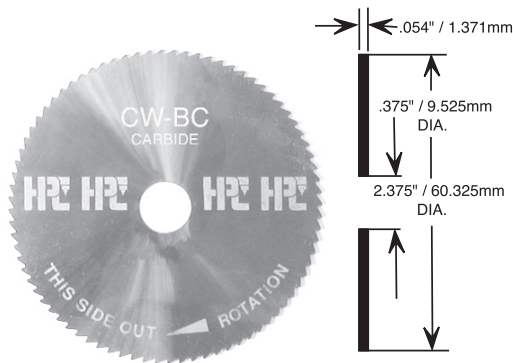
90° angle, large cylinder cutter for shallow & deep cuts in adjacent positions. For Best, Falcon, Eagle, Arrow, Kaba, and IC core.



No. CW-105

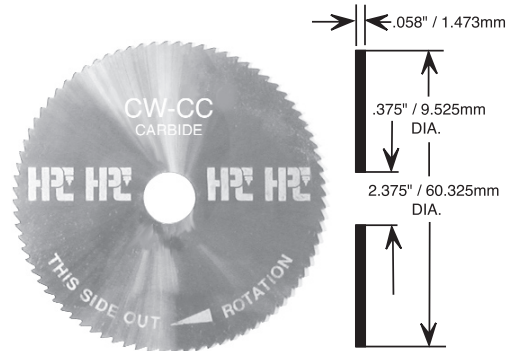
105°, double angle cutter for ASSA.

SLOTTER CUTTERS



No. CW-BC

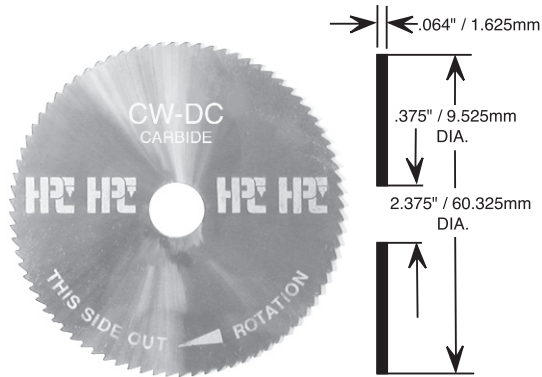
.054 carbide slotter cutter for Yale.
(requires spacer SPR-5)



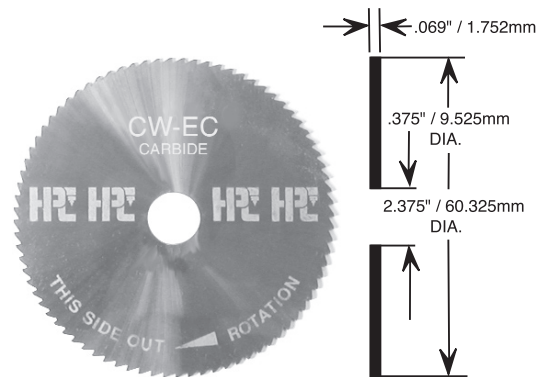
No. CW-CC

.058 carbide slotter cutter for S&G, Yale, Lloyd Matheson.
(requires spacer SPR-5)

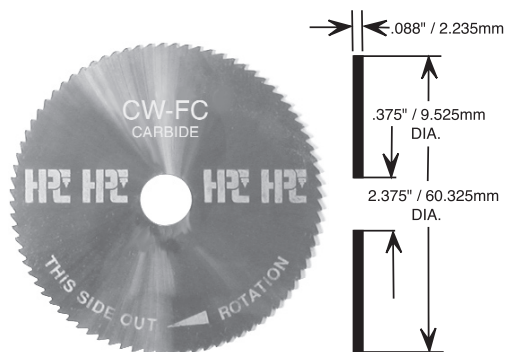
SLOTTER CUTTERS CONTINUED



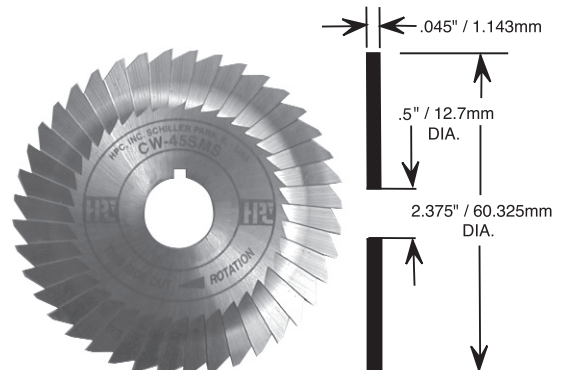
No. CW-DC
 .064 carbide slotter cutter for S&G.
 (requires spacer SPR-5)



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

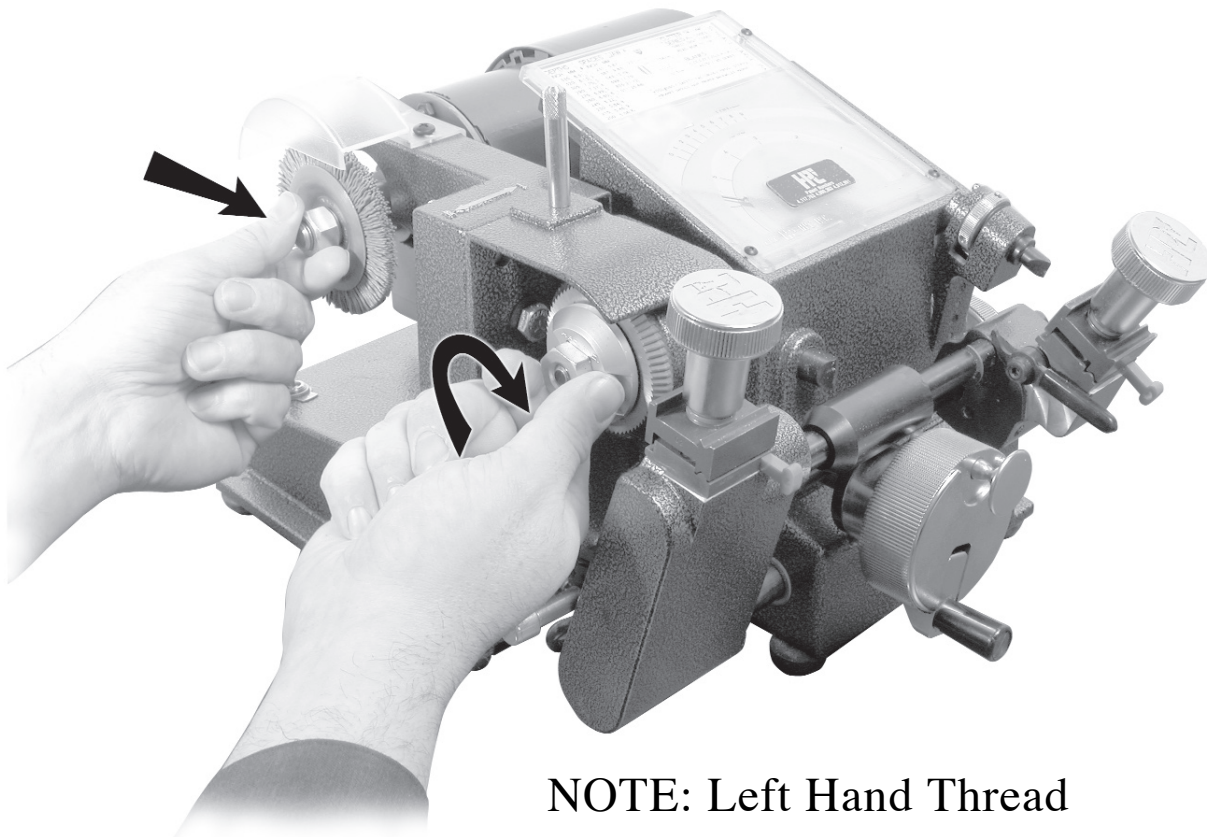


No. CW-FC
 .088 carbide slotter cutter for Mosler.
 (requires spacer SPR-5)



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

2.2 Changing Cutters:



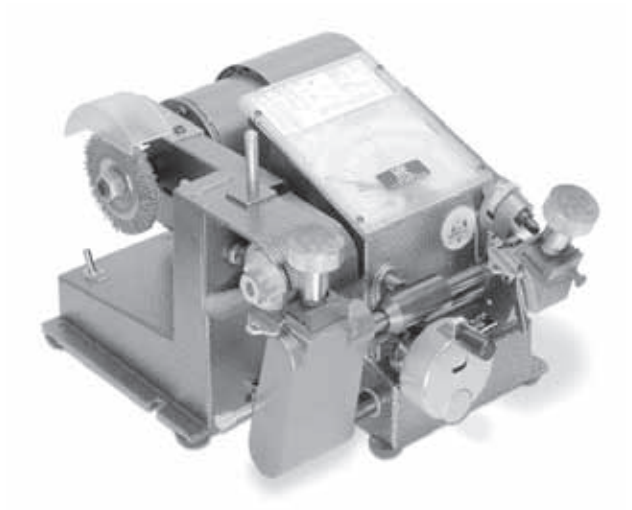
NOTE: Left Hand Thread

When changing from one cutter to another, the machine must be turned off.

Holding the brush or brush nut, loosen the Quick Nut and remove cutter. Place desired cutter onto cutter shaft and retighten the Quick Nut. Make certain the cutter is installed with the text facing out.

3.0

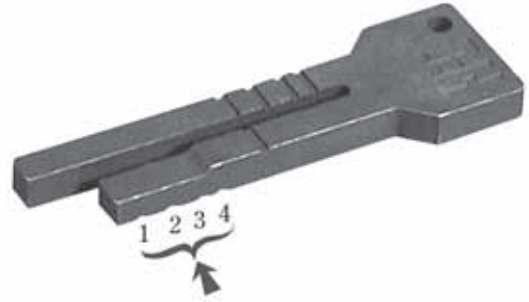
GAUGING AND HOLDING KEYS



3.1 Key Gauges:

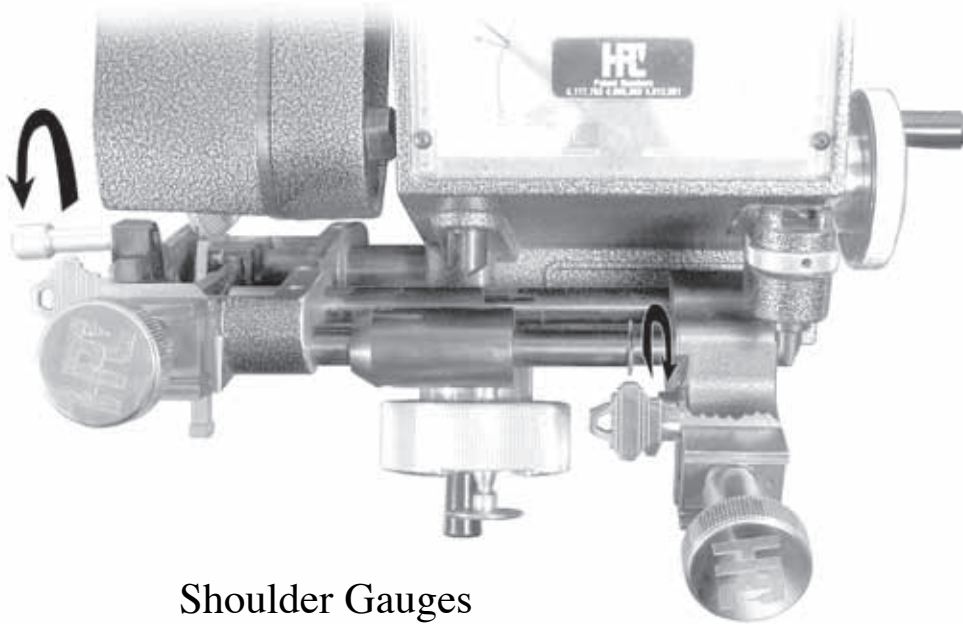


Red (Plastic) Tip Gauge
No. CM-1054MA



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

Refer to the appropriate code card for the applicable gauging method.



Shoulder Gauges

3.2 Shoulder Gauge Safety Switch (cutter side only):

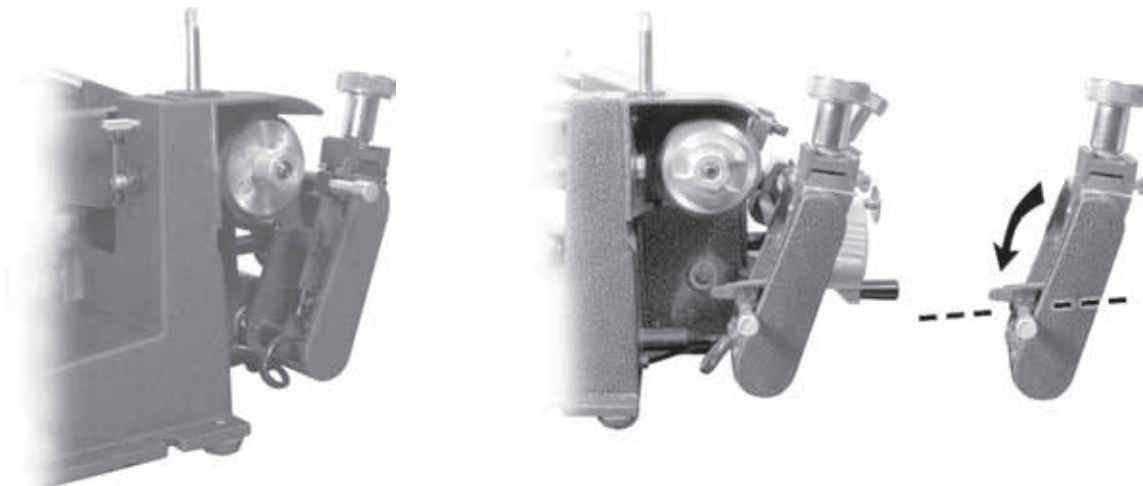
This machine is equipped with a Shoulder Gauge Safety Switch (No. 1200C-SGS) on the cutter side to protect the shoulder gauge from being accidentally damaged by the cutter. This type of accident occurs if the shoulder gauge is left up at the key after gauging rather than being lowered to its rest position before cutting the key.

Cutting A Key

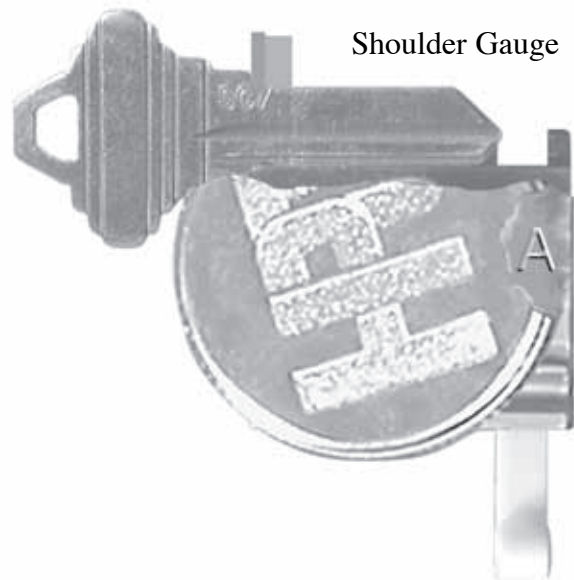
To cut a key you must lower the gauge to its rest position before turning on the cutter motor. Turning on the cutter motor is accomplished with the switch at the rear of the machine. Turning on the machine's cutter motor with the shoulder gauge not in the rest position will result in the safety switch 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 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.



3.3 Vice Jaws:



STANDARD CYLINDER KEY (with Shoulder Gauging using Jaw A)

(Example: Schlage, Card No. C45)

Place the 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.

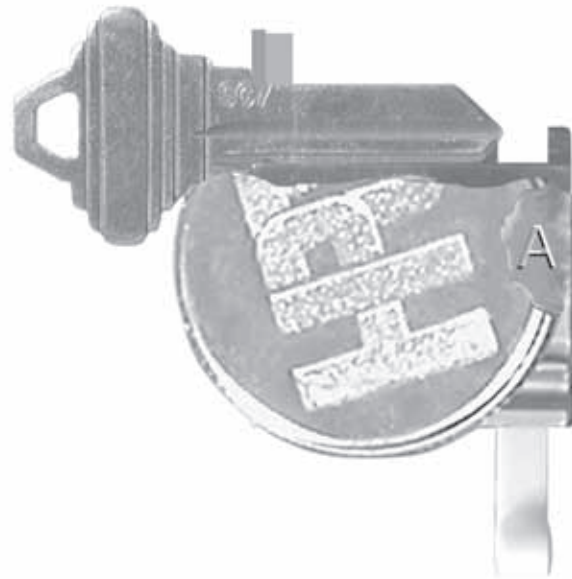
No. CM-1054MA
Key Vise Tip Gauge



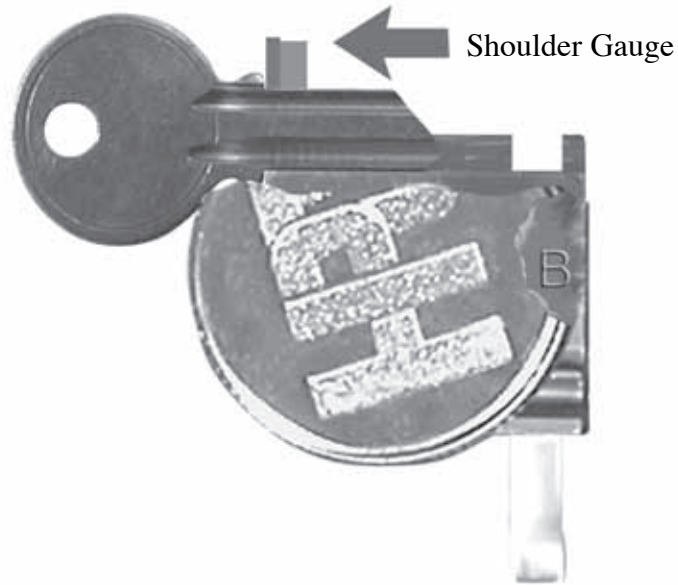
Key vise tip gauge
pulled to rear and into
Position No. 1.

**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 laying flat
against the ledge before
tightening the wing nut.



3.4 Use of Jaw B:



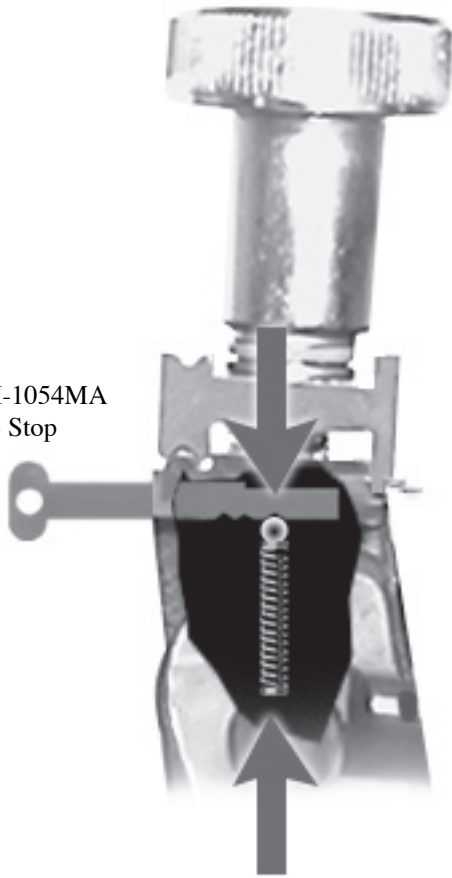
STANDARD CYLINDER KEY (with Shoulder Gauging using Jaw B)

(Example: Master, Card No. C34)

The key shoulder touches the left hand edge of the shoulder gauge.

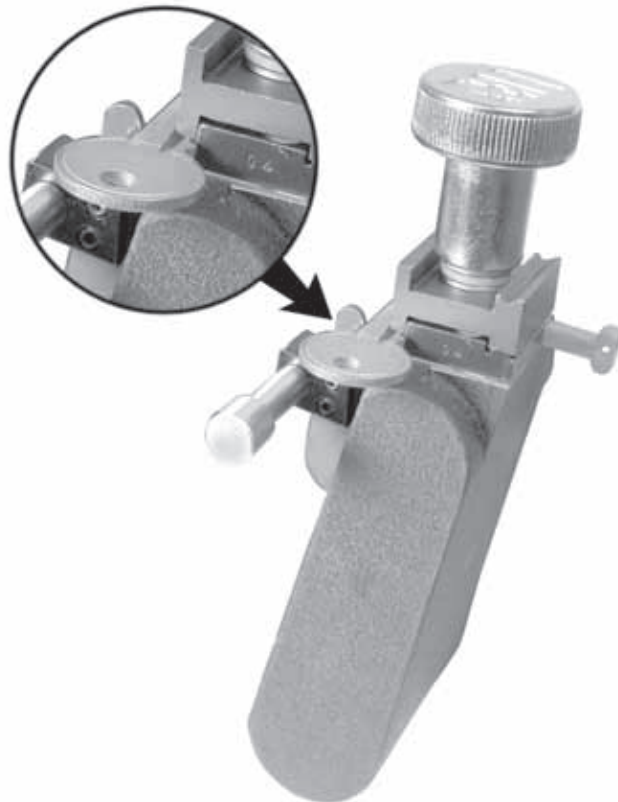
Flip the gauge down before turning on the motor.

No. CM-1054MA
Tip Stop

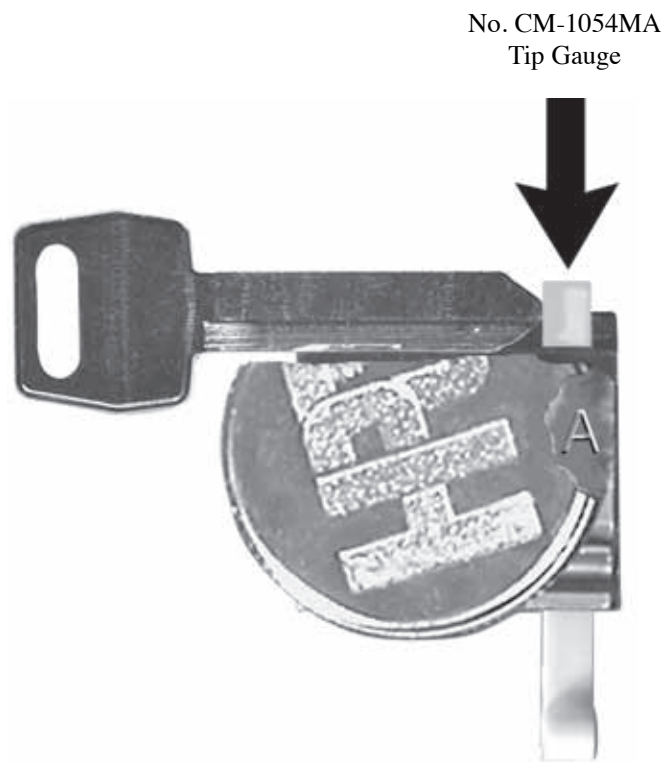


Key lays in front of the
lip. Key vise tip gauge
pulled to rear. (Position
No. 1)

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



3.5 Tip Stops:

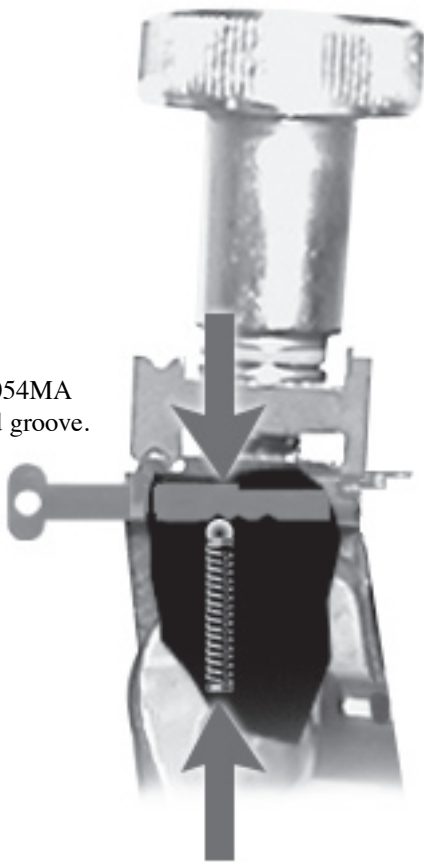


RED FULL SHORT TIP STOP (Gauging using Jaw A)

(Example: Ford, Card No. C24)

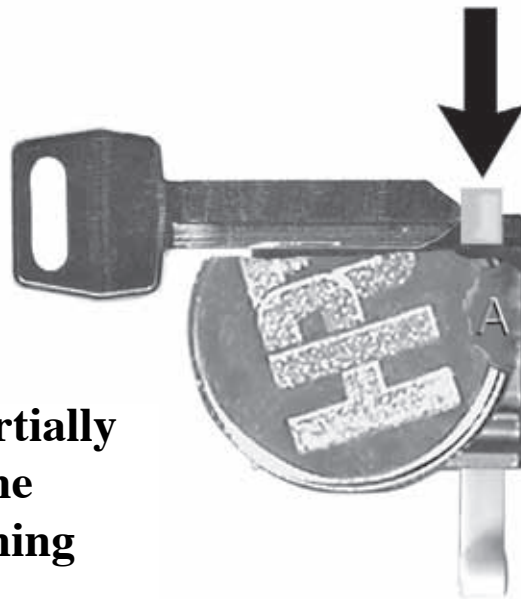
Key is gauged from the tip.

No. CM-1054MA
Gauge in 3rd groove.



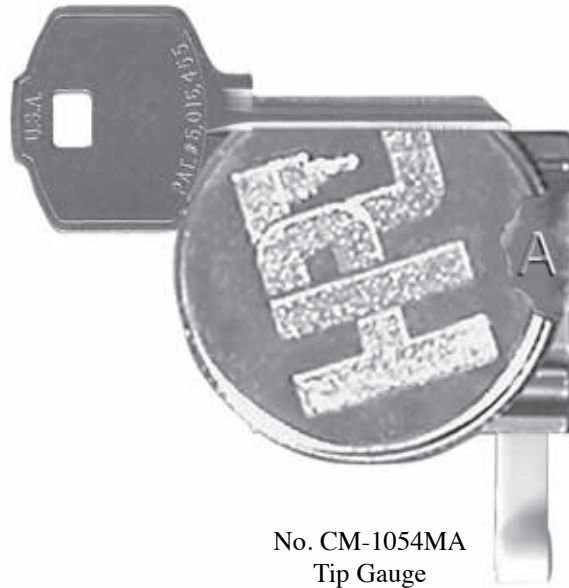
Key vise tip gauge, pushed inward to the third groove position. The tip gauge is pulled to rear while cutting.

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



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

3.6 Red Tip Stop:

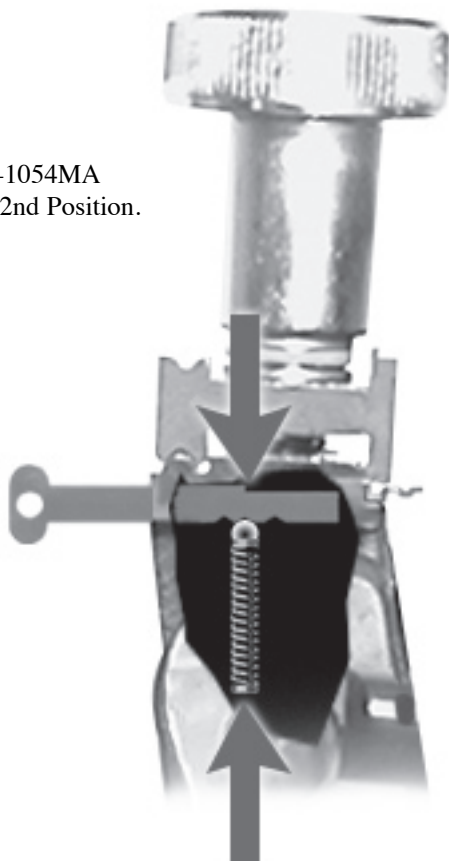


RED MIDDLE SHORT TIP STOP (Gauging Using Jaw A)

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

The key is gauged from bottom stop, not the tip.

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

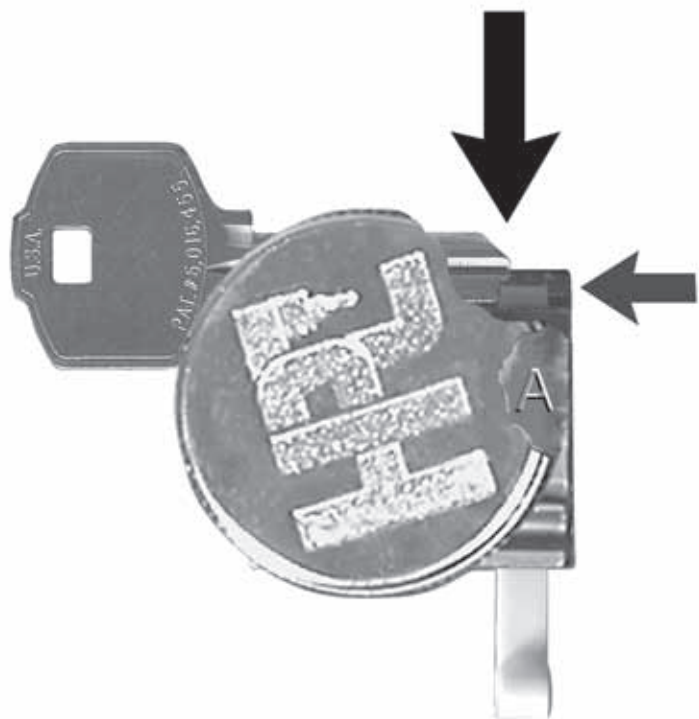


Key vise tip gauge,
pushed inward to the
second groove position.
The tip gauge is pulled
to rear while cutting.

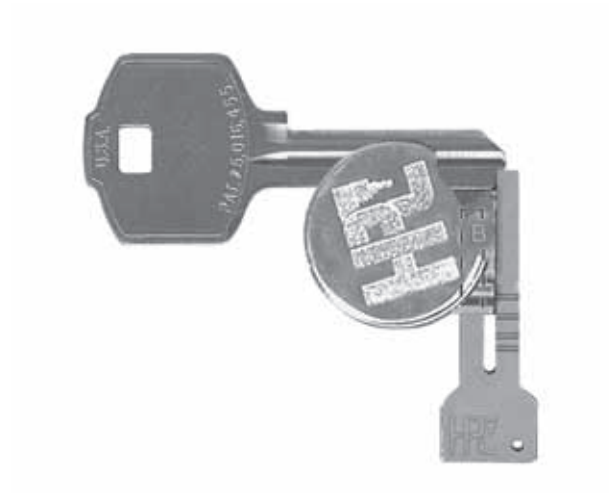
Top jaw of vise removed to
show a top view of the lower
jaw only, for key positioning
and stop bar settings.

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

*For BEST type blanks see
section 3.7.



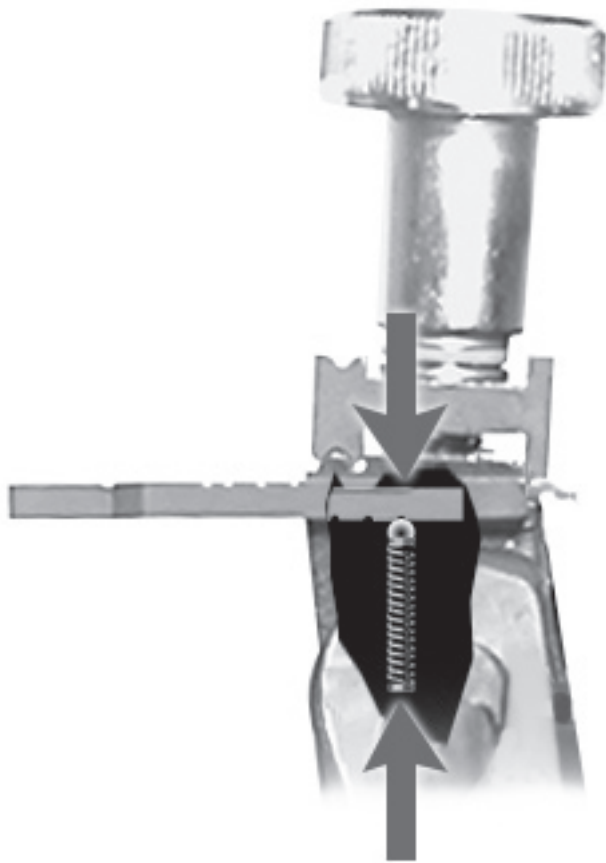
3.7 Horseshoe Tip Stop (short end):



BLACK HORSESHOE SHORT TIP STOP (Gauging Using Jaw B)

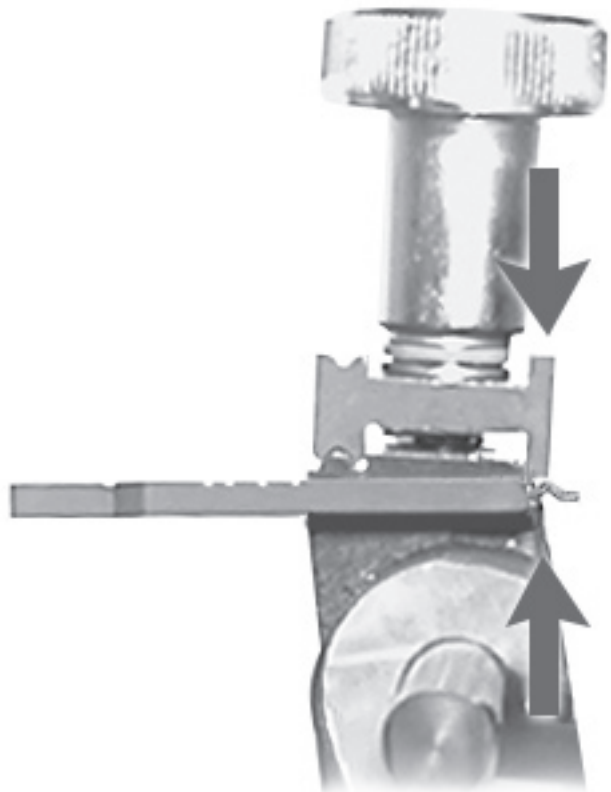
(Example: Best Card No. C3)

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

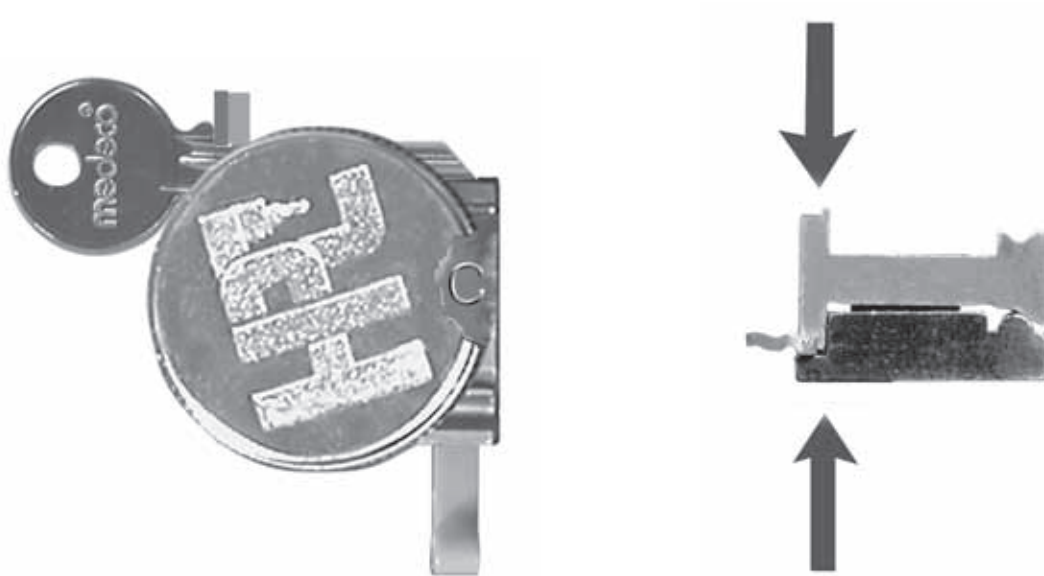


Gauge pushed inward to first groove position.

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



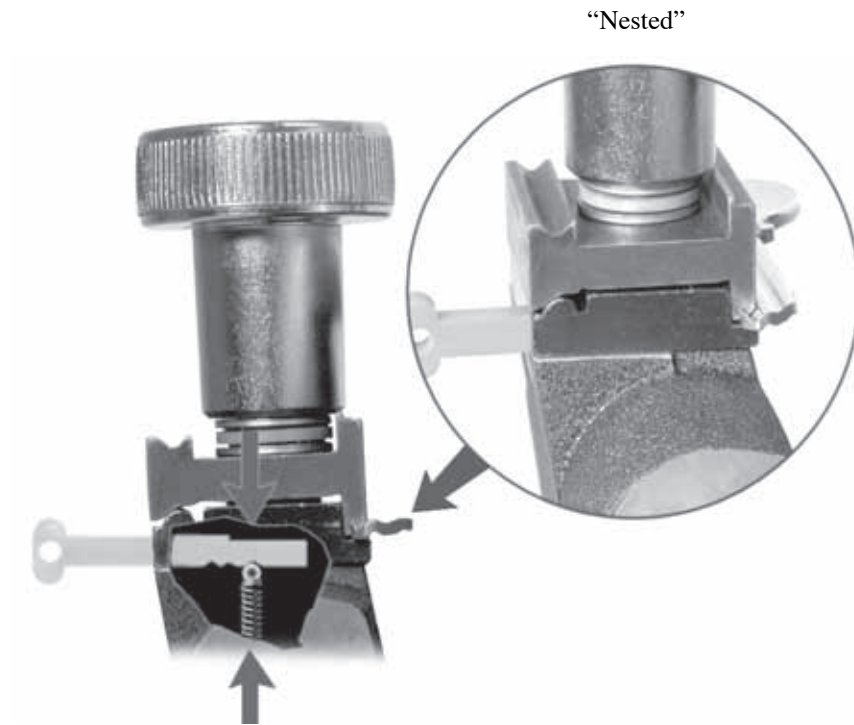
3.8 Medeco® Jaw C:



MEDECO® - STANDARD COMMERCIAL Using Jaw C (Purchased Separately)

(Example: Medeco® Card No. C36)

The key shoulder touches the left hand edge of the shoulder gauge. Flip the gauge down before turning on the motor.



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

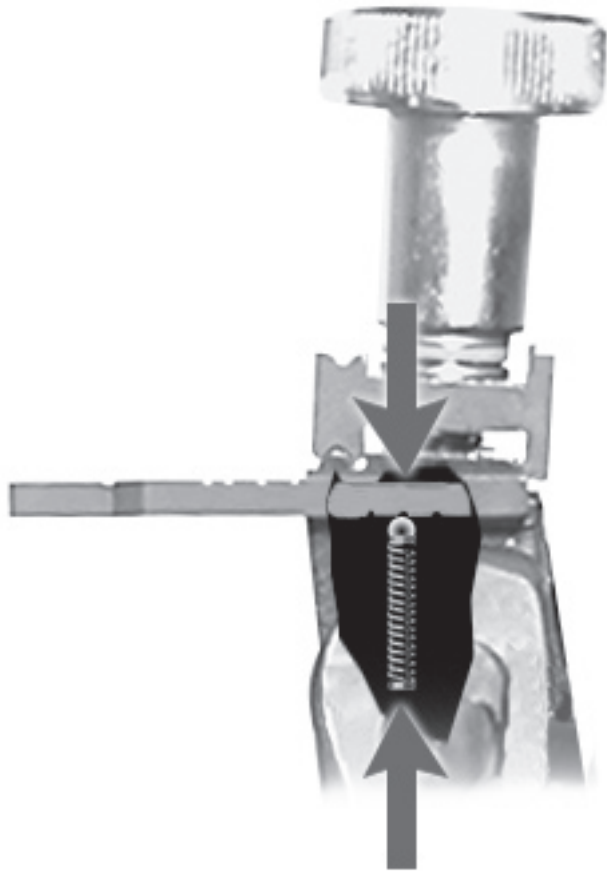
3.9 Black Horseshoe Tip Stop (full end):



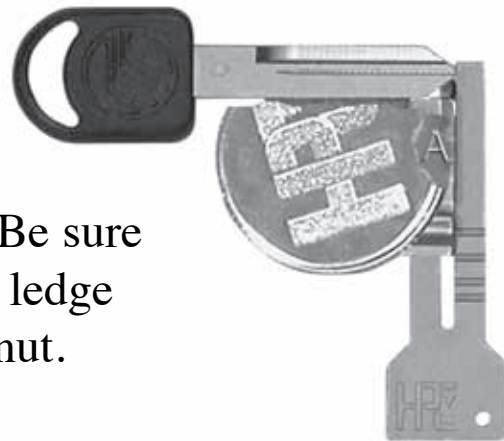
BLACK HORSESHOE FULL END TIP STOP (Gauging using Jaw A or B)

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

The key is gauged from the tip as shown.
(Note: Black tip gauge NOT Red.)

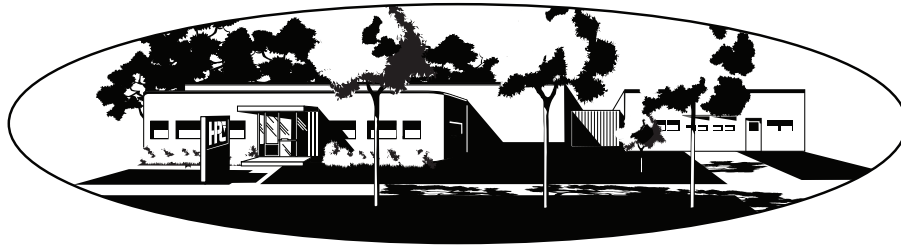


Detent in second
groove position.



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

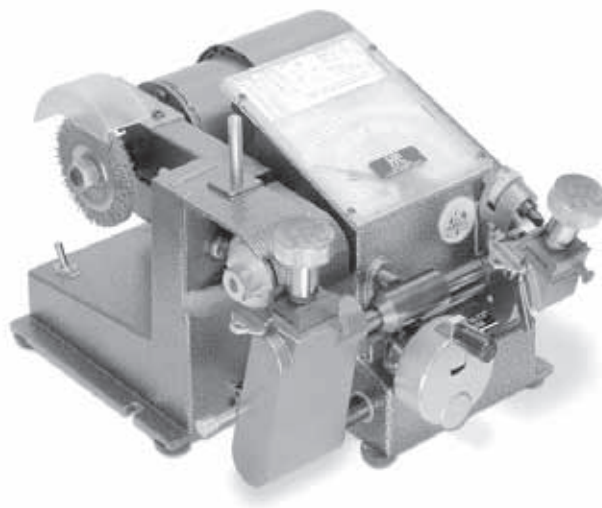
Visit us online at:

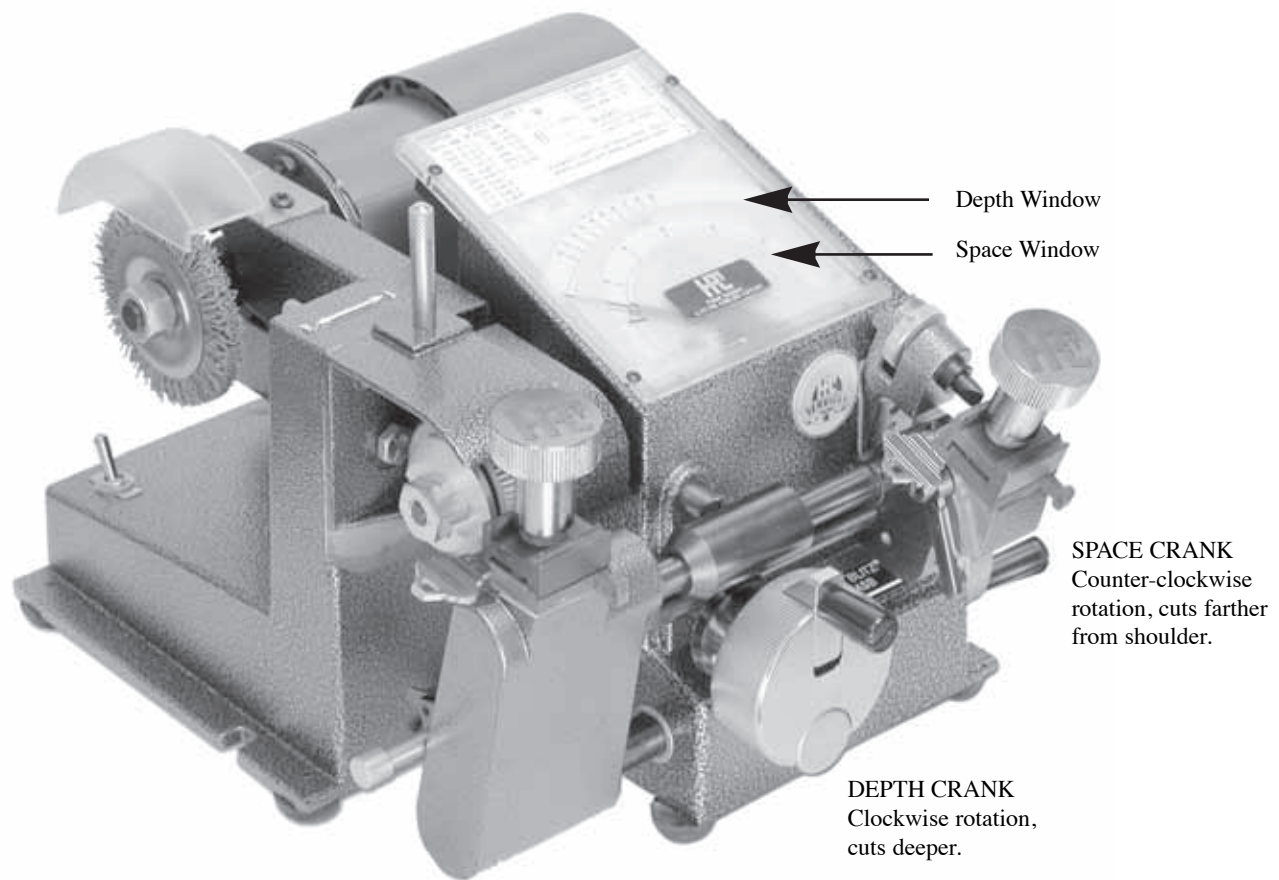


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4.0

DEPTH AND SPACE CRANK CONTROLS



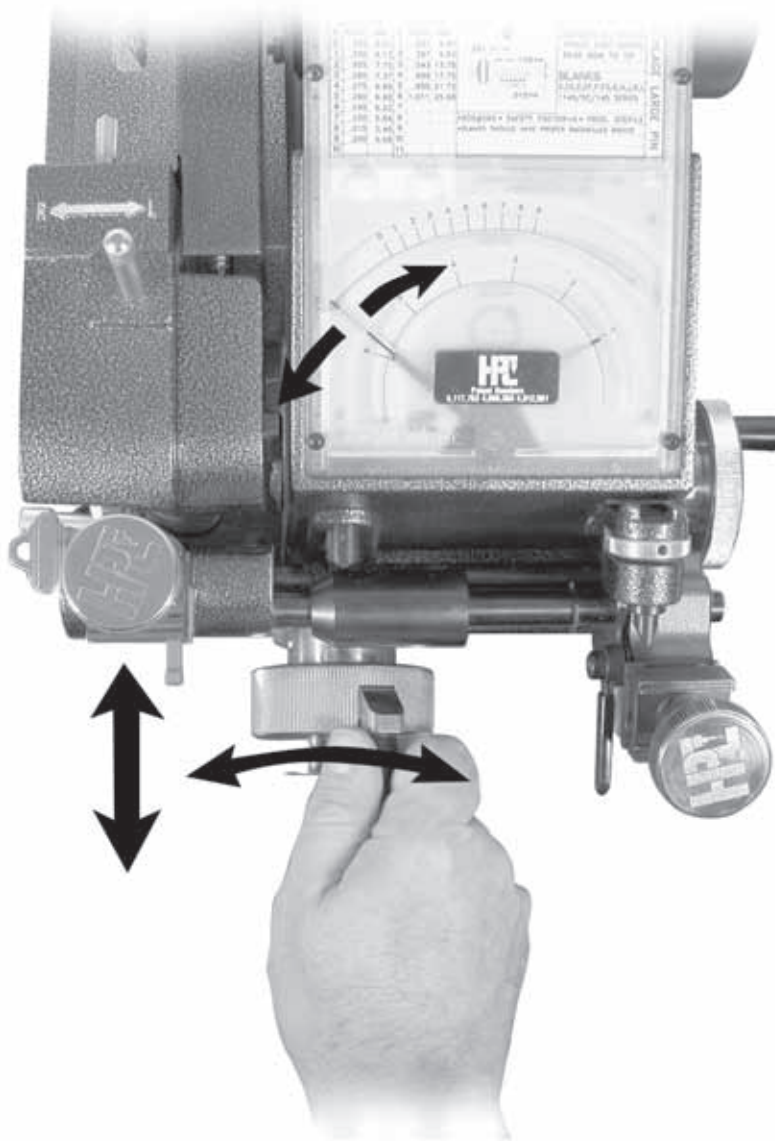


DEPTH CRANK

THE DEPTH OF A CUT is controlled by rotating the 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.

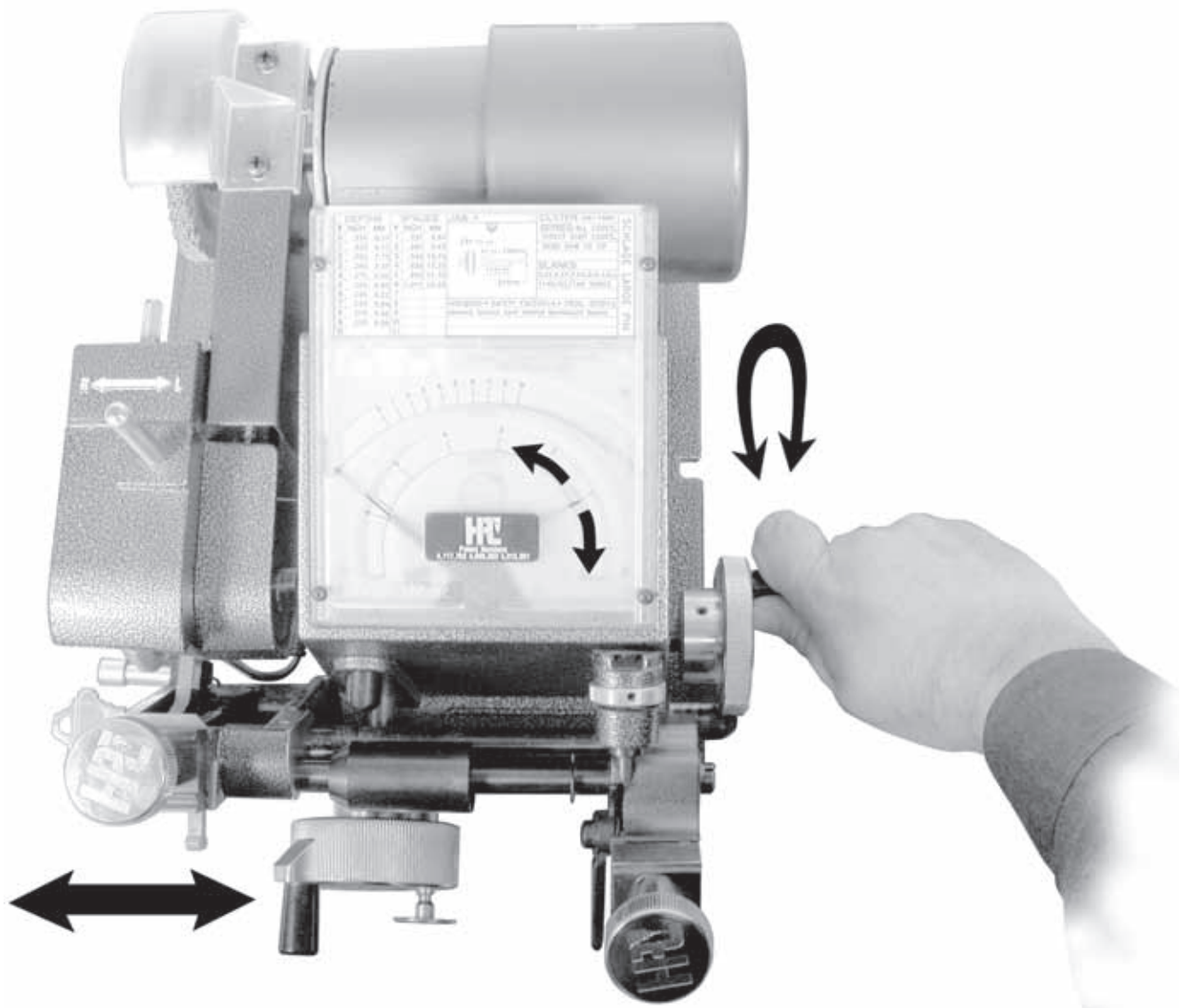
SPACE CRANK

THE LATERAL MOVEMENT of the key is controlled by rotating the Space 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.

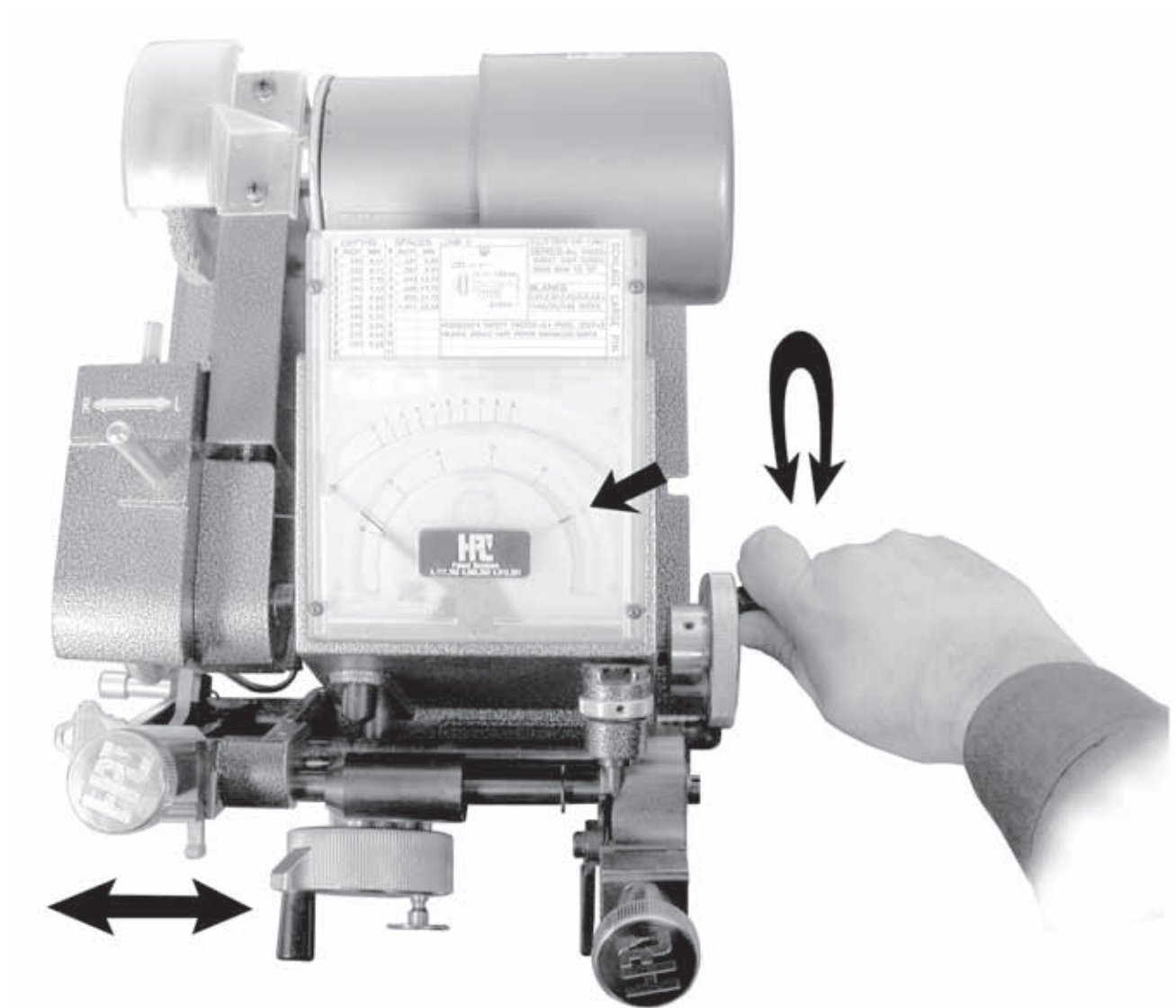


Rotating the Depth Crank clockwise, the pivot arm will move inward towards the cutter, rotating counter-clockwise will move it outward away from the cutter.

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.

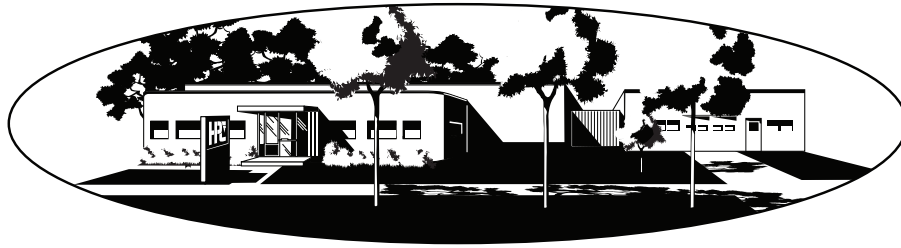


Rotating the Space Crank clockwise moves the pivot arm to the right, and rotating counter-clockwise moves it to the left.



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

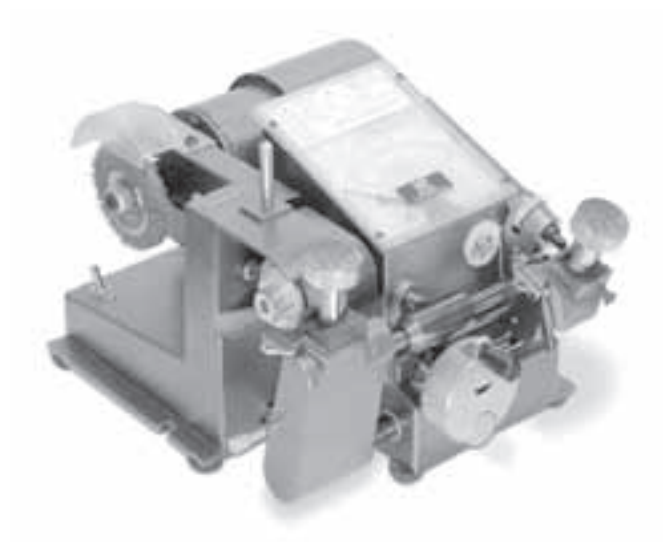
CUTTING THE KEY

5.1

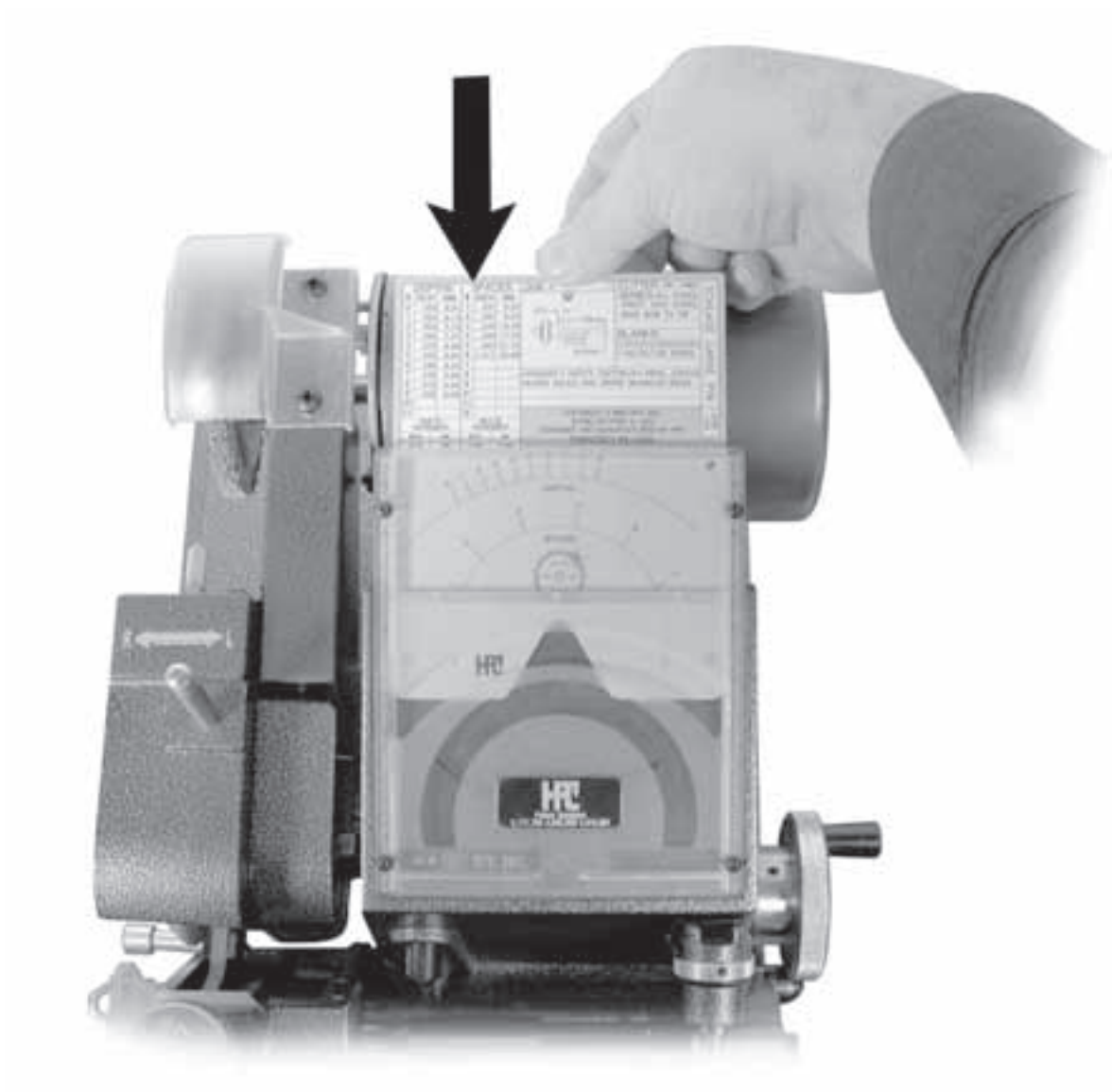
CODE CUTTING

5.2

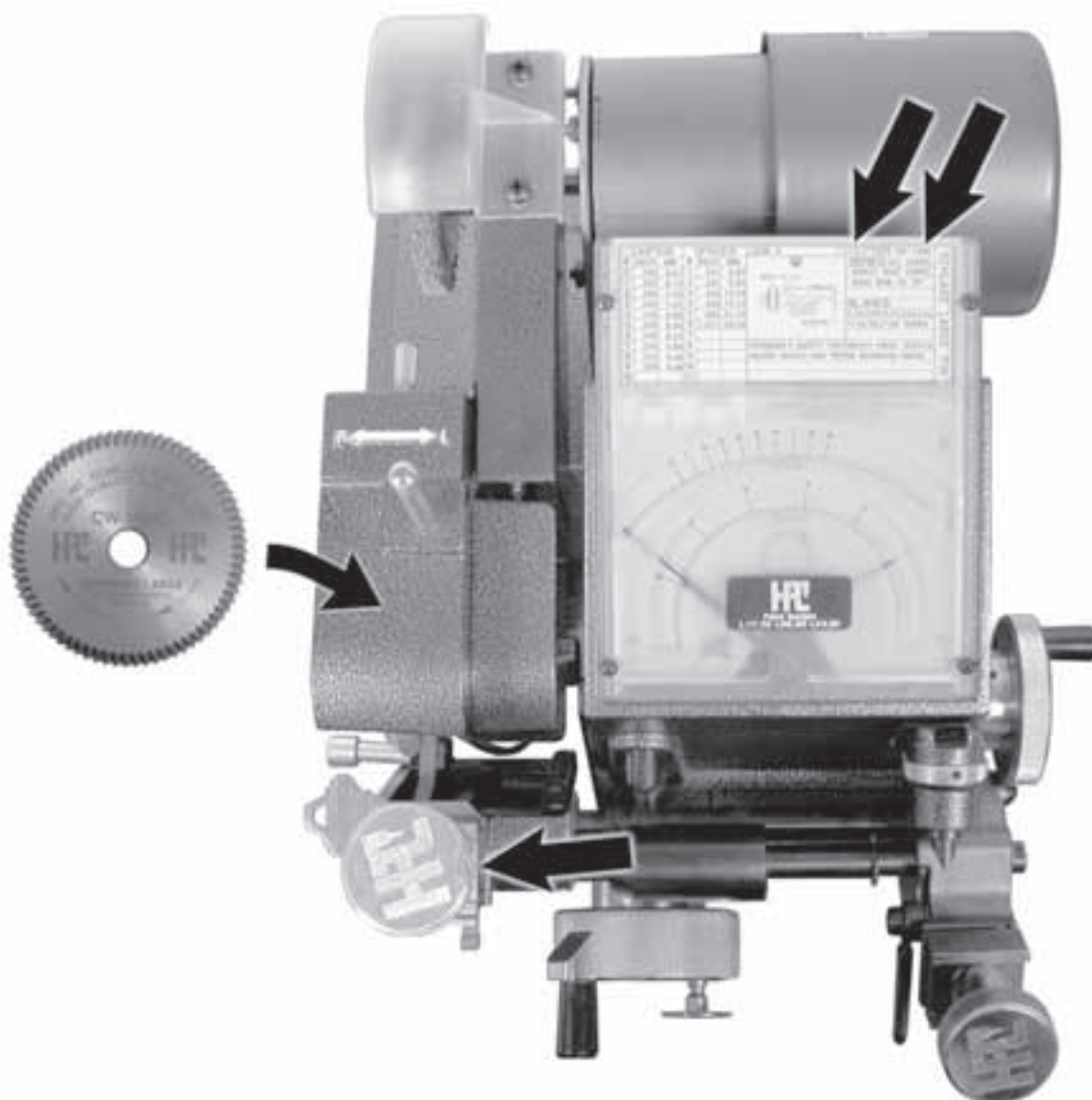
DUPLICATING



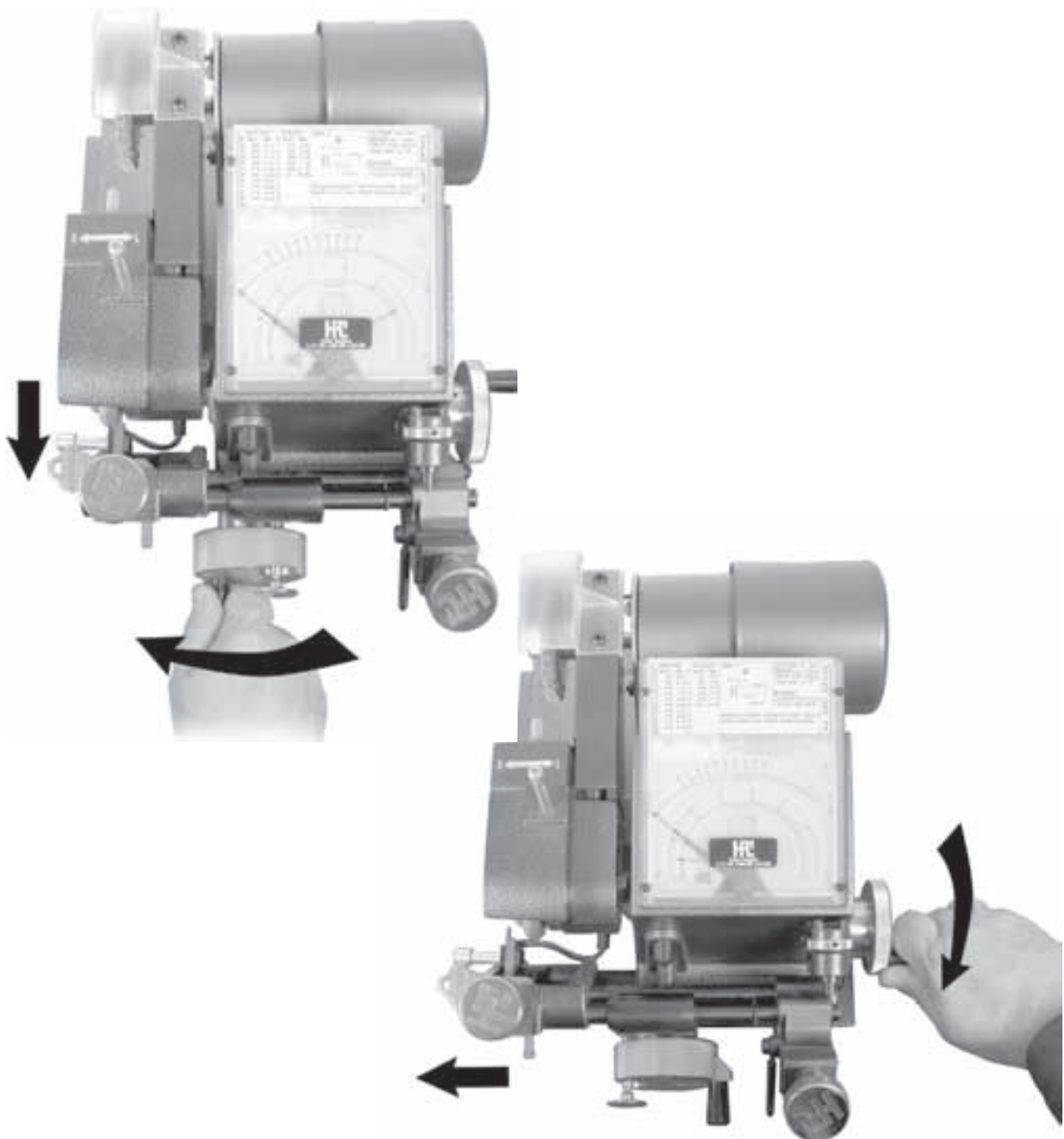
5.1 Code Cutting:



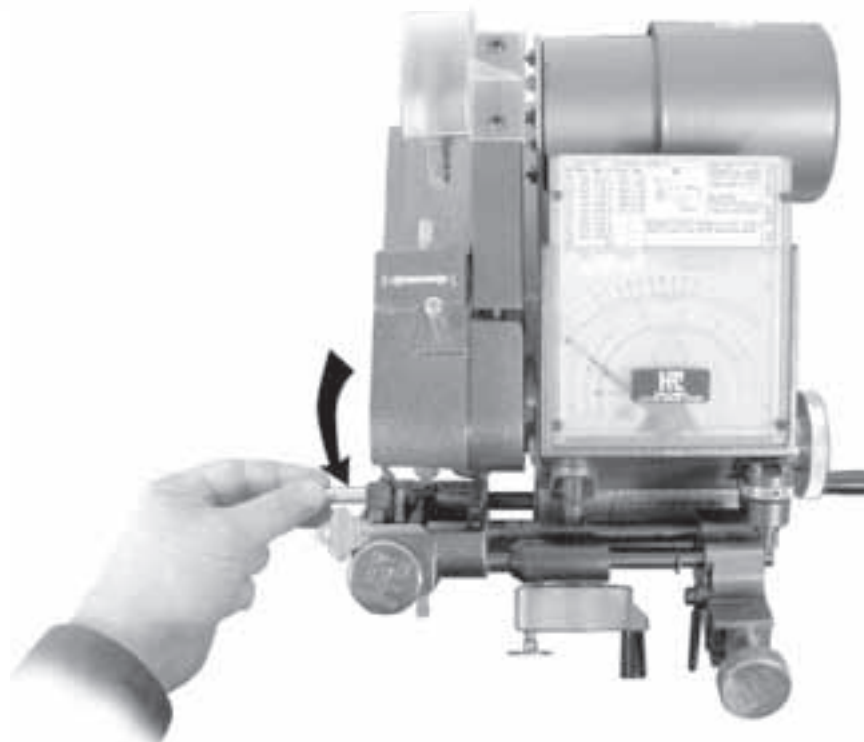
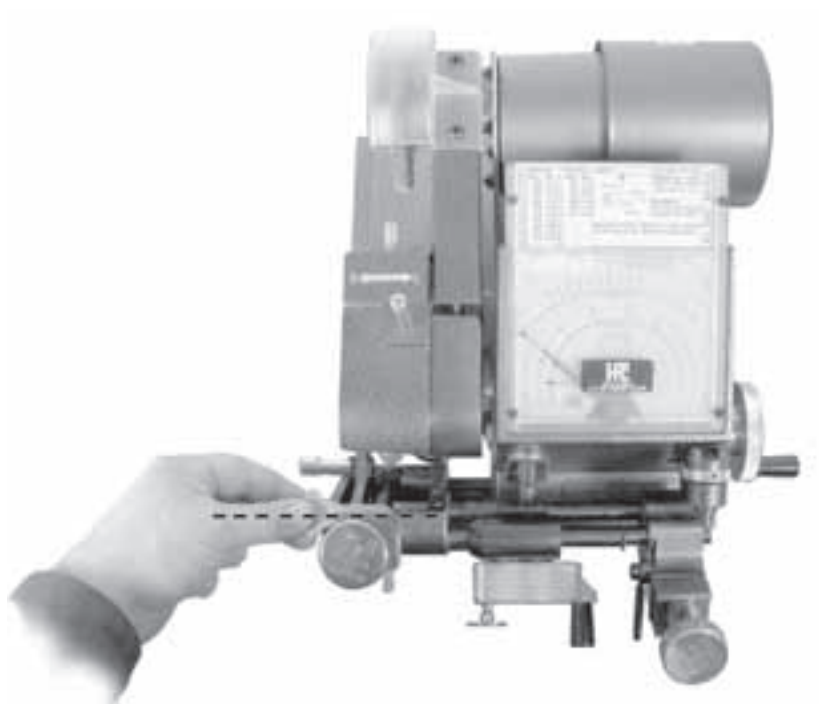
Select the correct Code Card and insert it beneath the lens and needles as shown above.



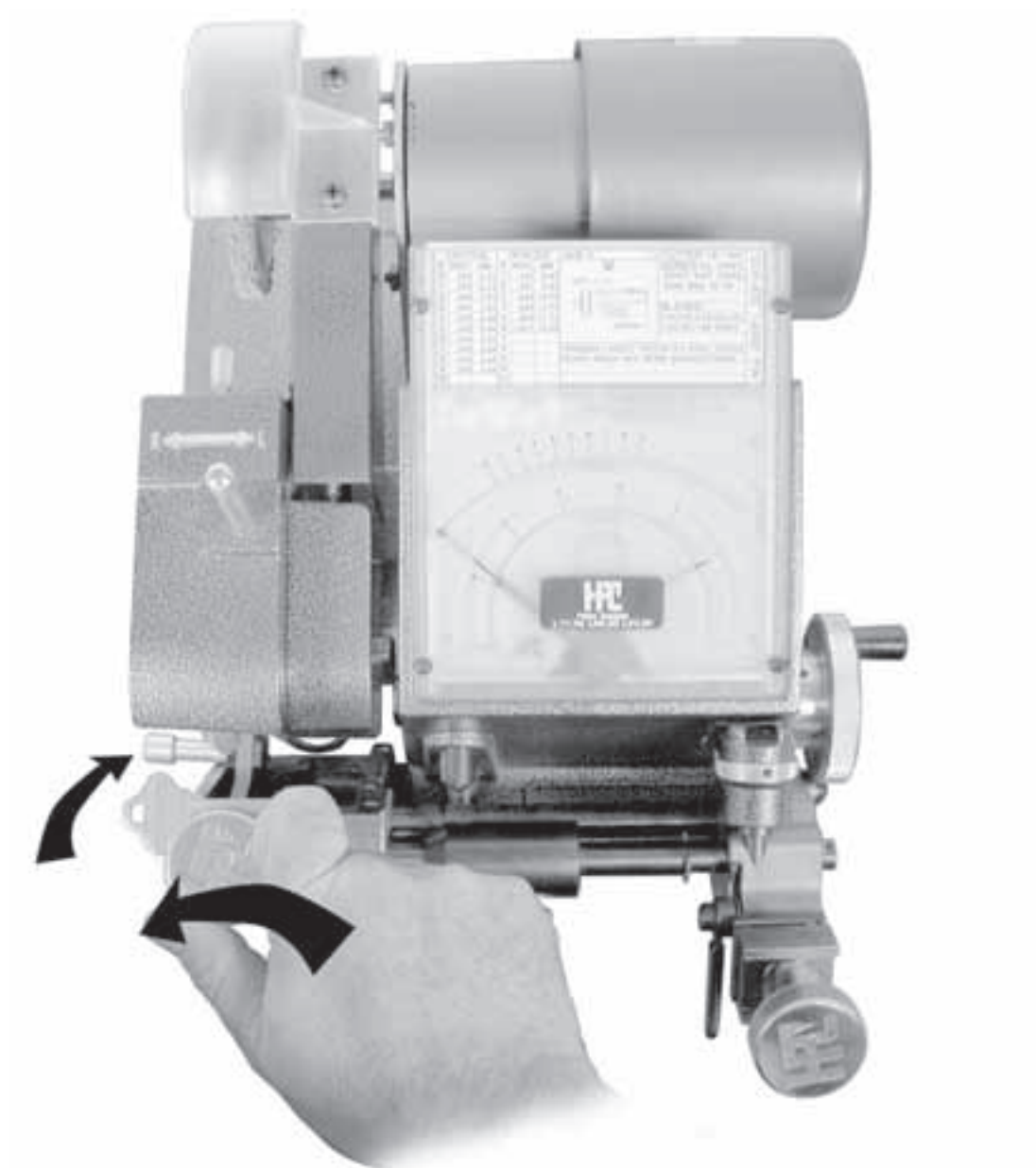
Make certain the proper cutter and jaw are used as indicated on the Code Card.



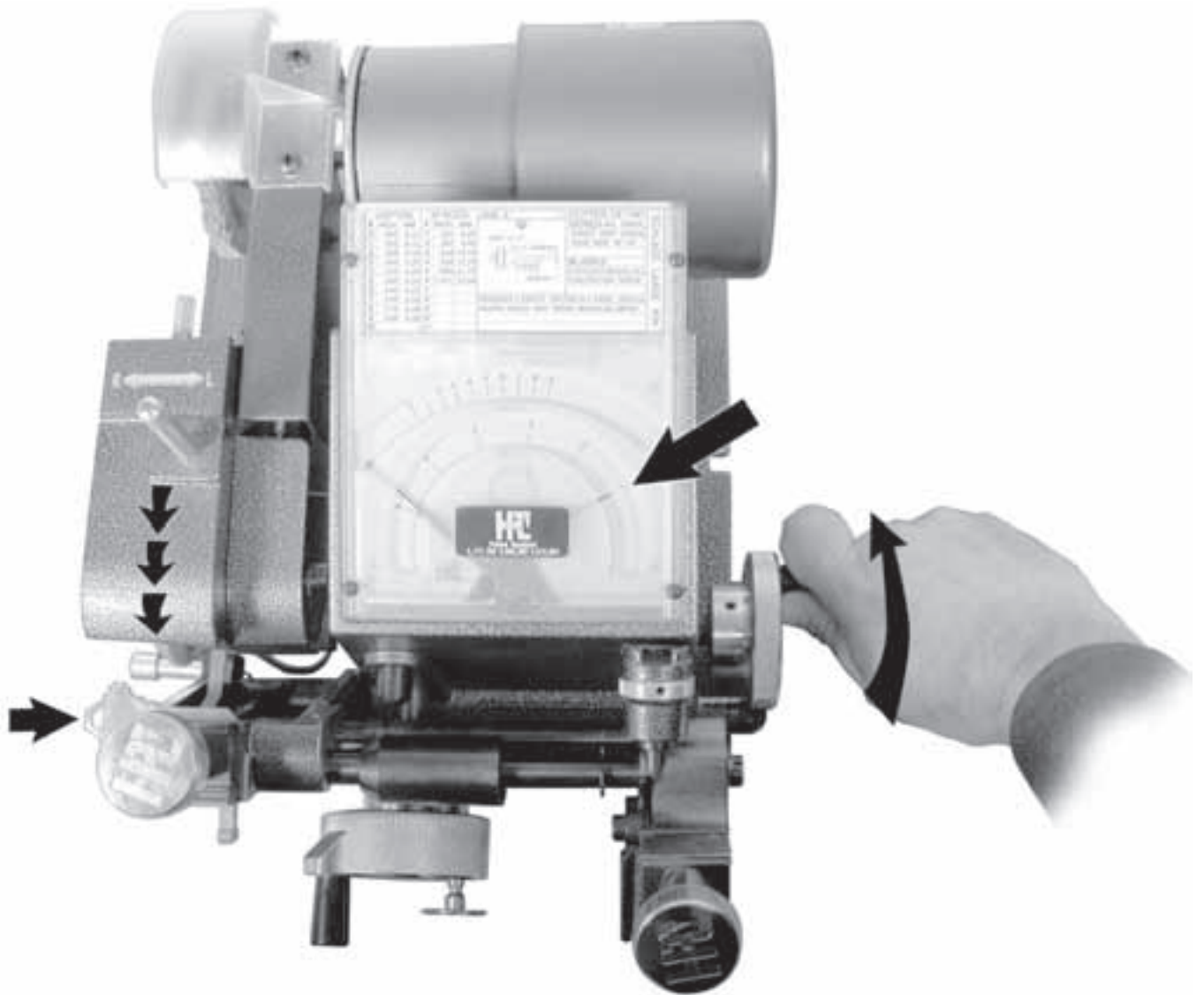
For maximum clearance, and easy accessibility when inserting the key blank, rotate both of the crank knobs counter-clockwise.



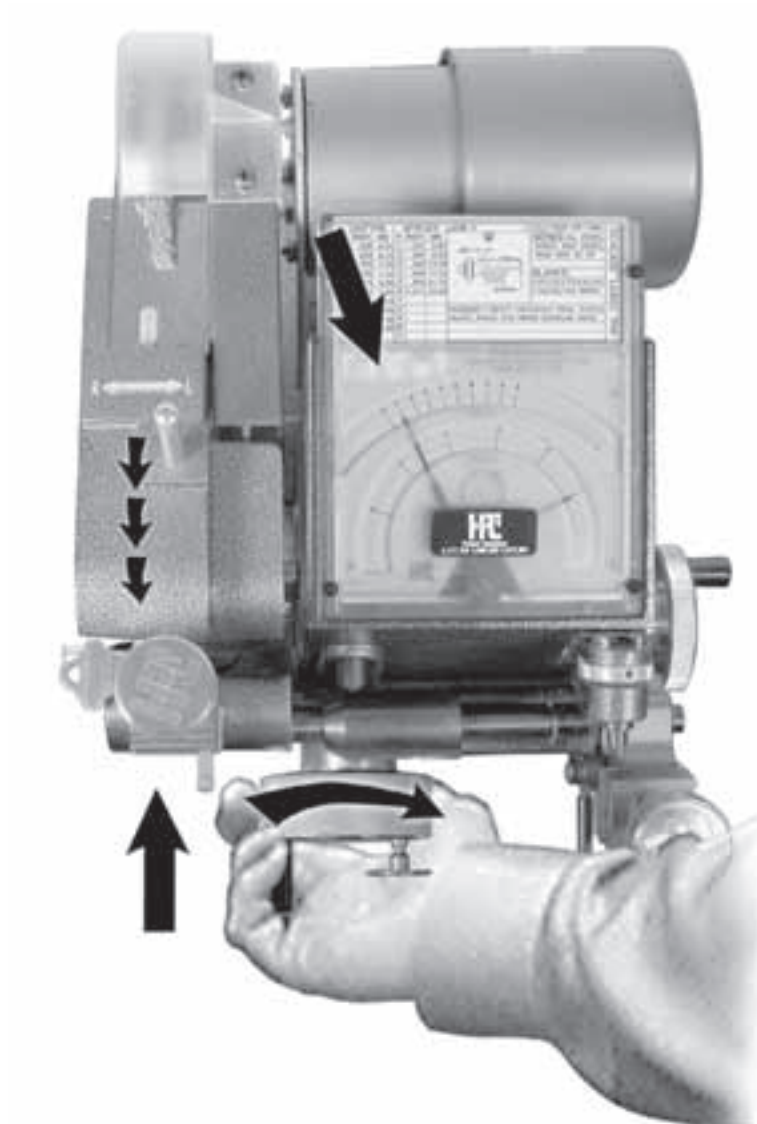
Gauge the key.



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

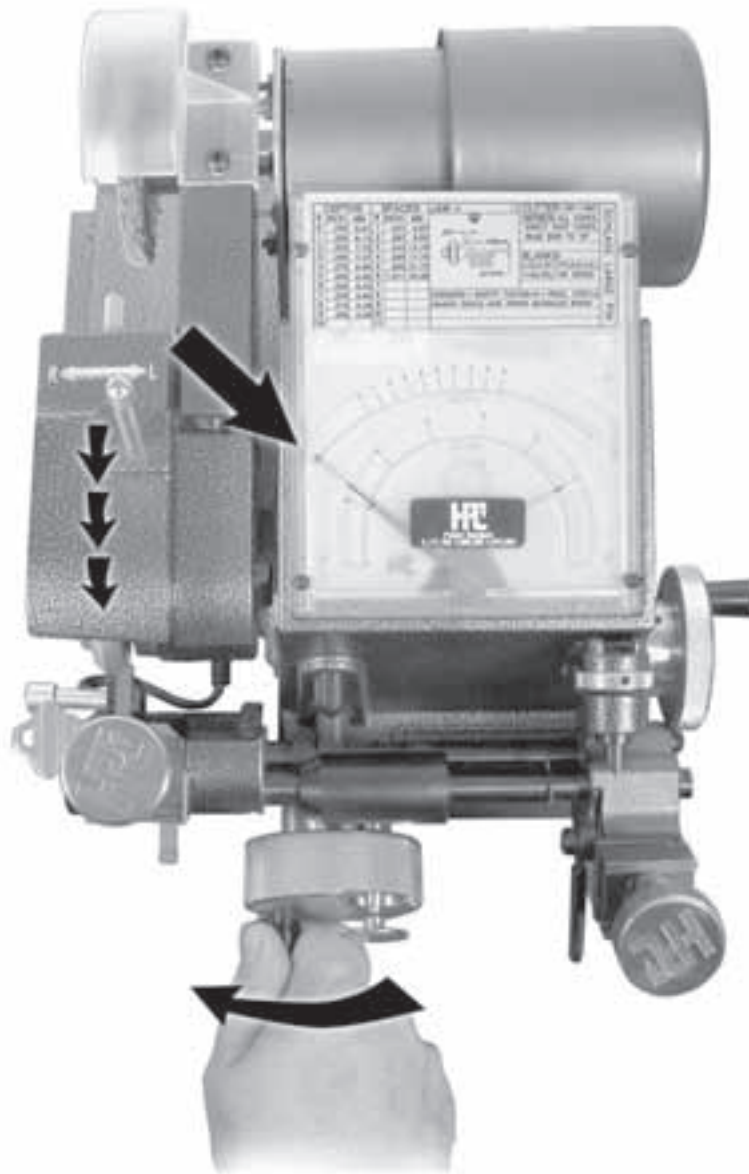


Turn the machine on and rotate the Space Crank clockwise until the indicator lines up with the No. 1 space mark in the space window as indicated above.

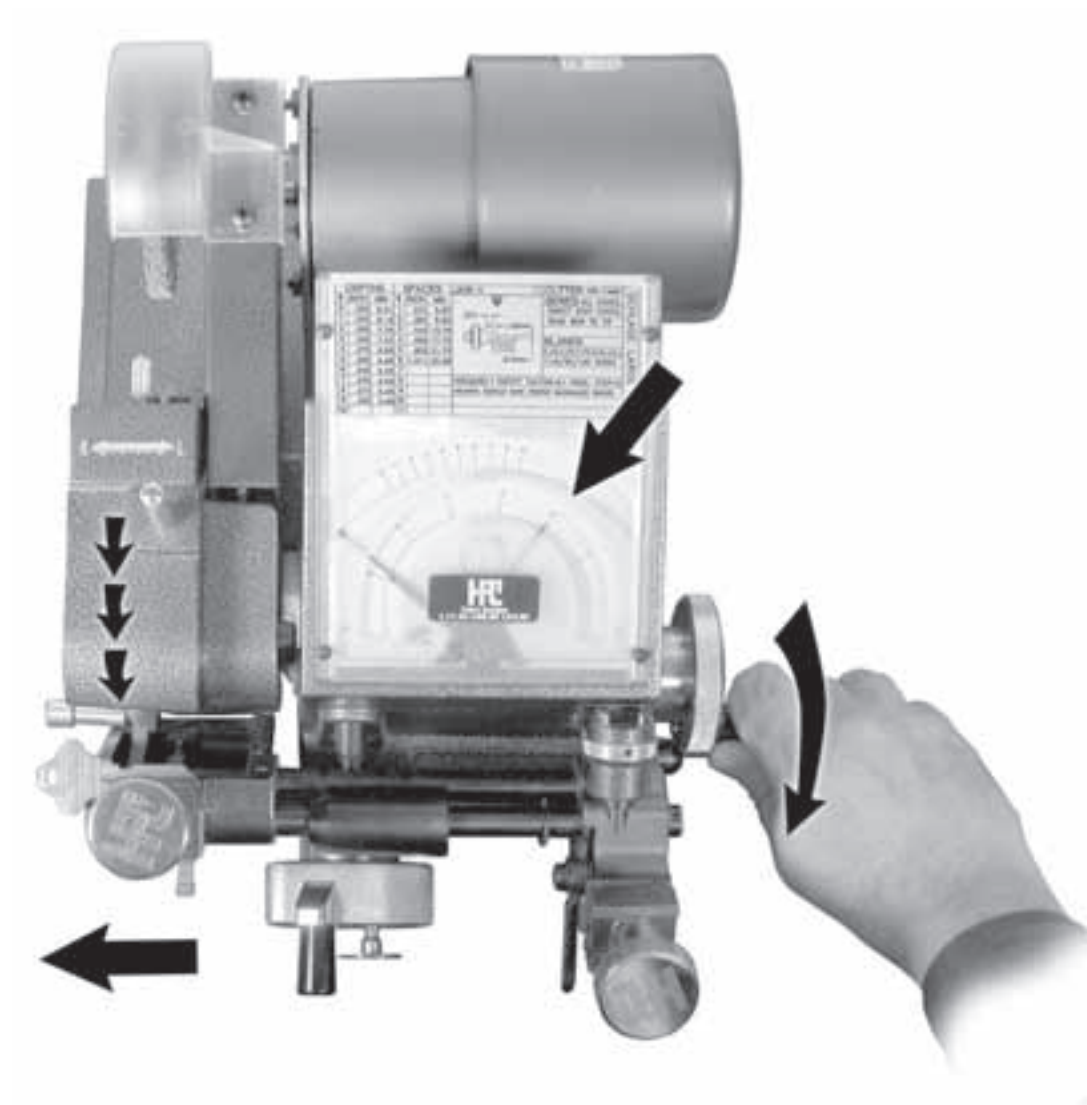


Slowly rotate the Depth Crank clockwise until the depth indicator is centered over the depth mark you wish to cut as shown in the upper depth window.

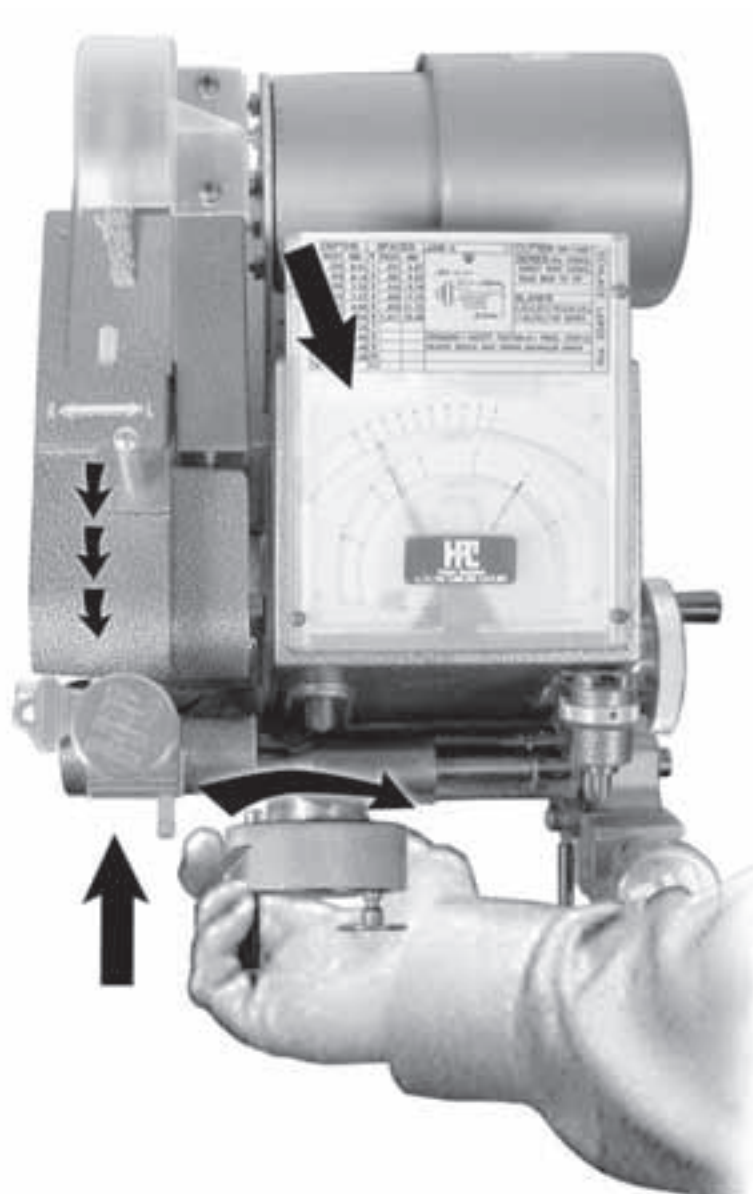
Do NOT pass the mark!



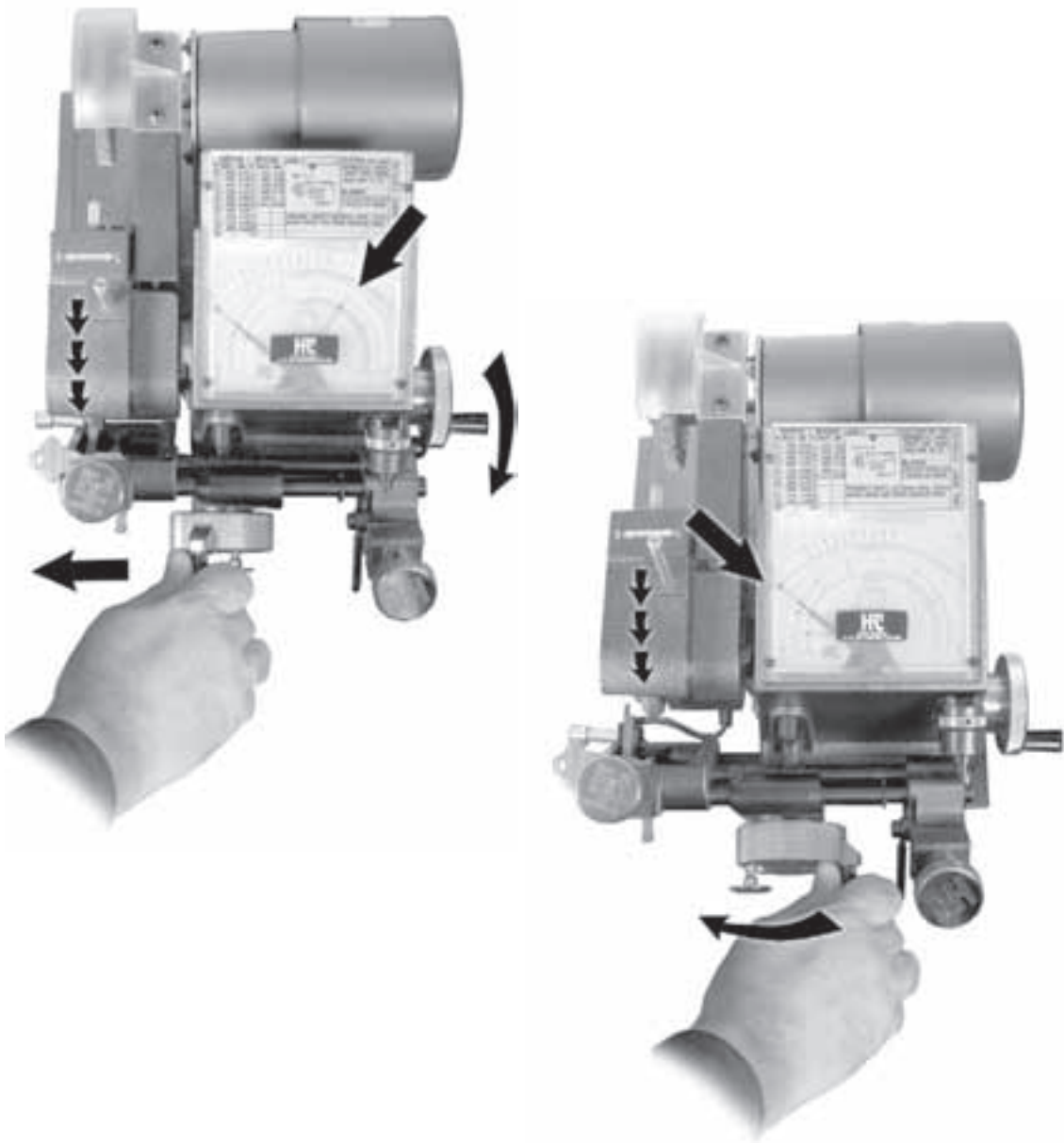
Now rotate the Depth Crank counter-clockwise (outward) until the spinning cutter is clear of the key blank.



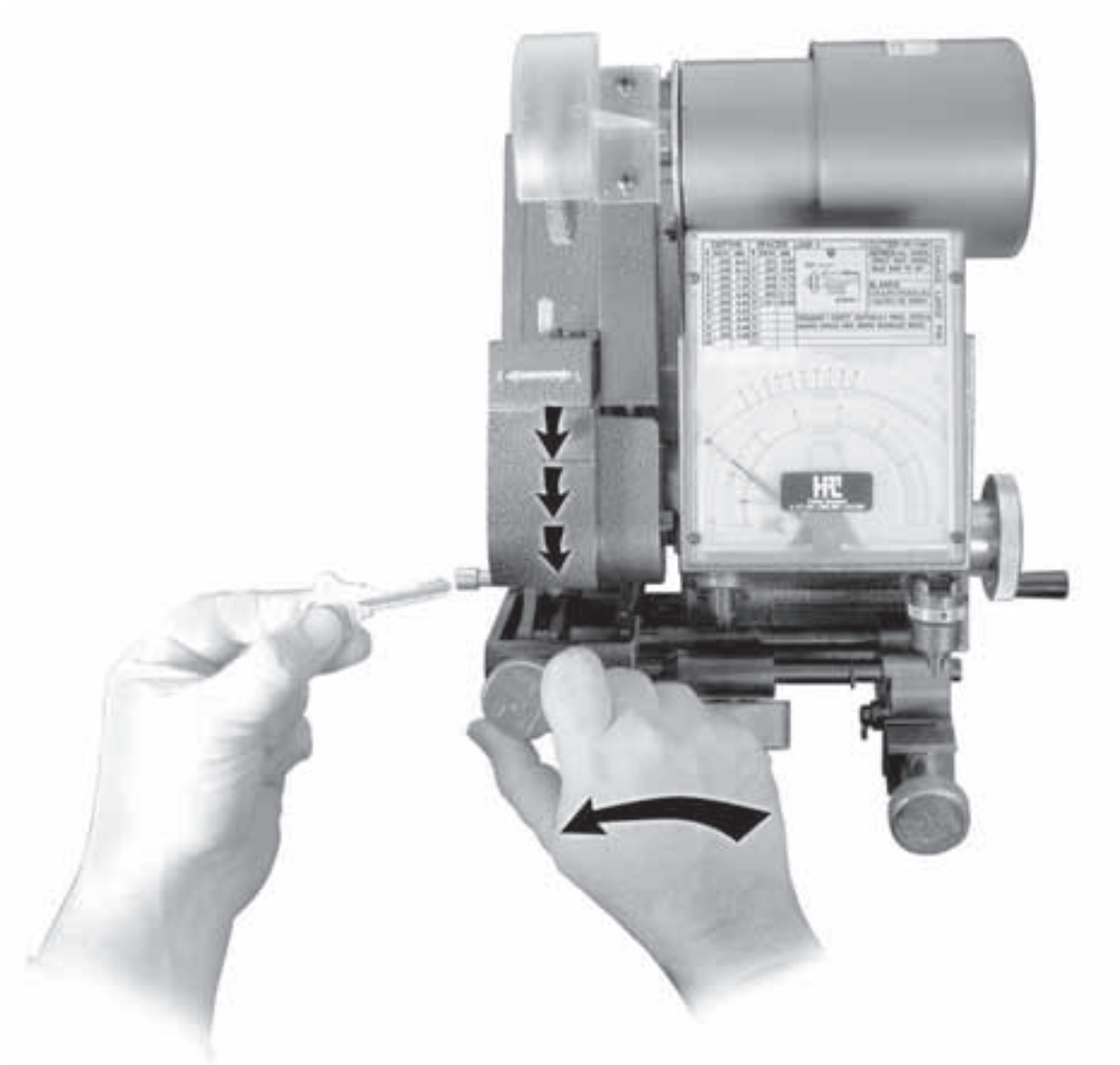
Rotate the Space Crank to the second space indicator.



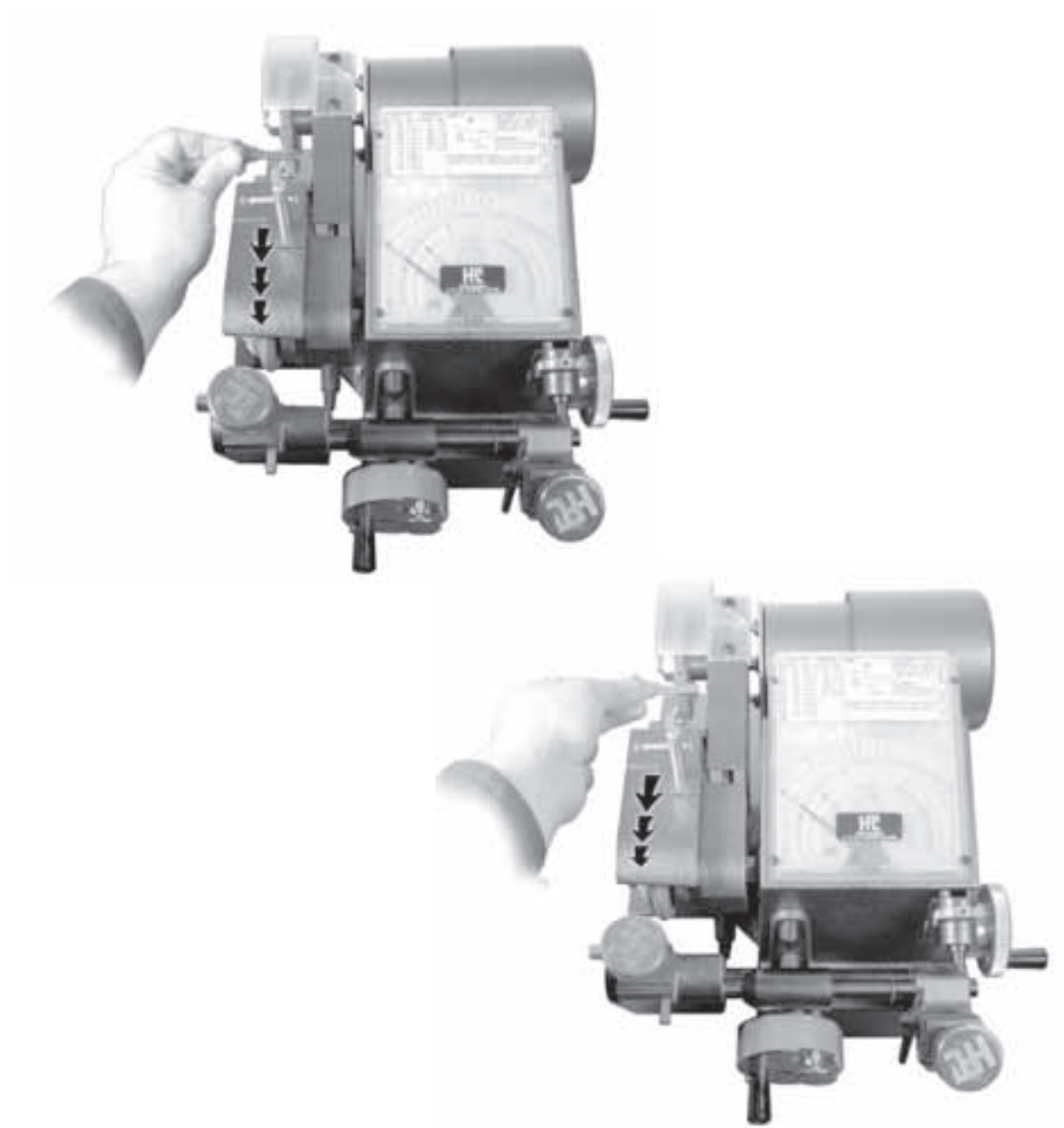
Slowly rotate the Depth Crank clockwise until the depth indicator is centered once more over the depth you wish to cut in this space position.



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



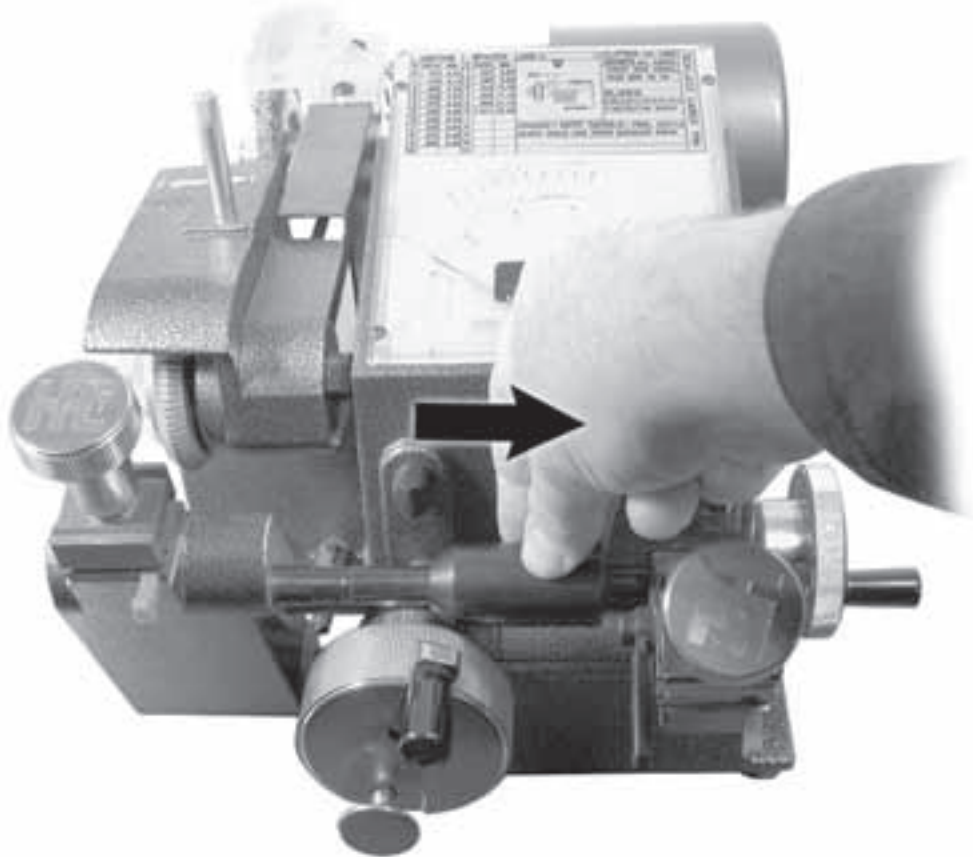
Upon completion of the last cut rotate both of the cranks counter-clockwise for maximum clearance and easy accessibility to the cut key. Then turn off the machine and remove the key.



Turn the motor back on to deburr the key.

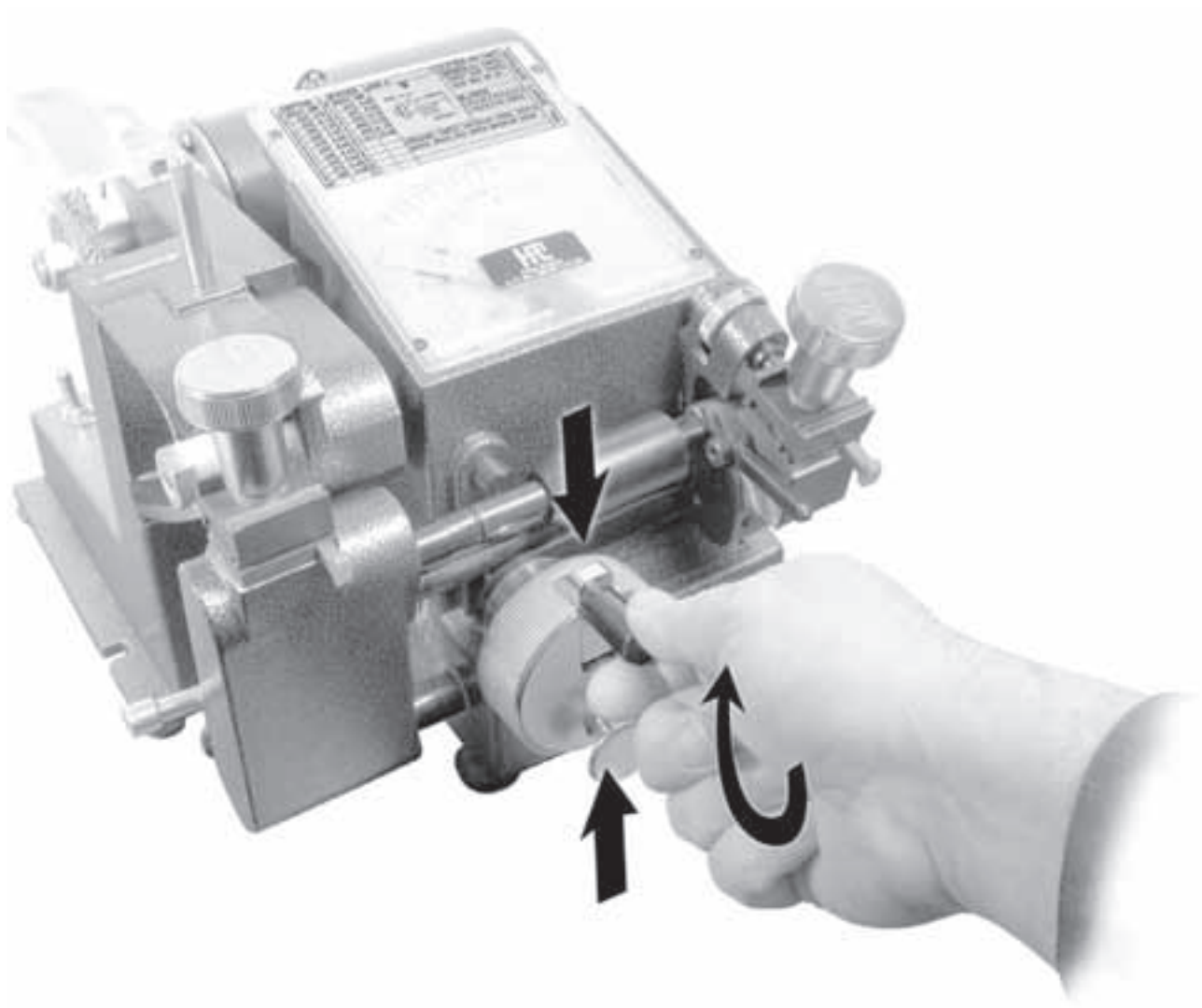
5.2 Duplicating:

IMPORTANT: Angle cut keys can be cut by code only and are not to be cut by duplicating! For complete procedures on cutting angle cut keys see section 6.0, Angle Cut Keys.

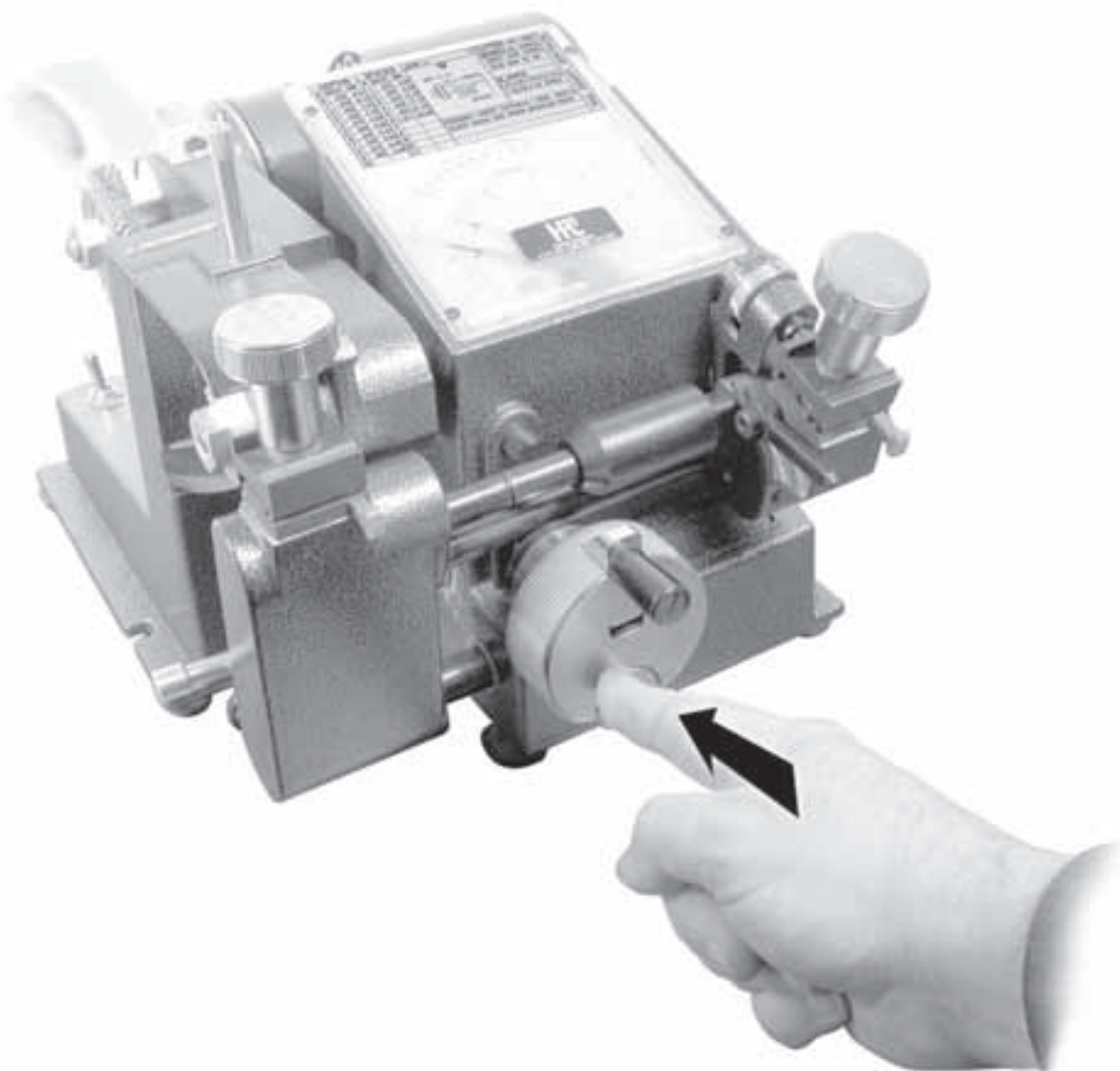


To switch from Code Cutting mode to Duplicating mode you must first:

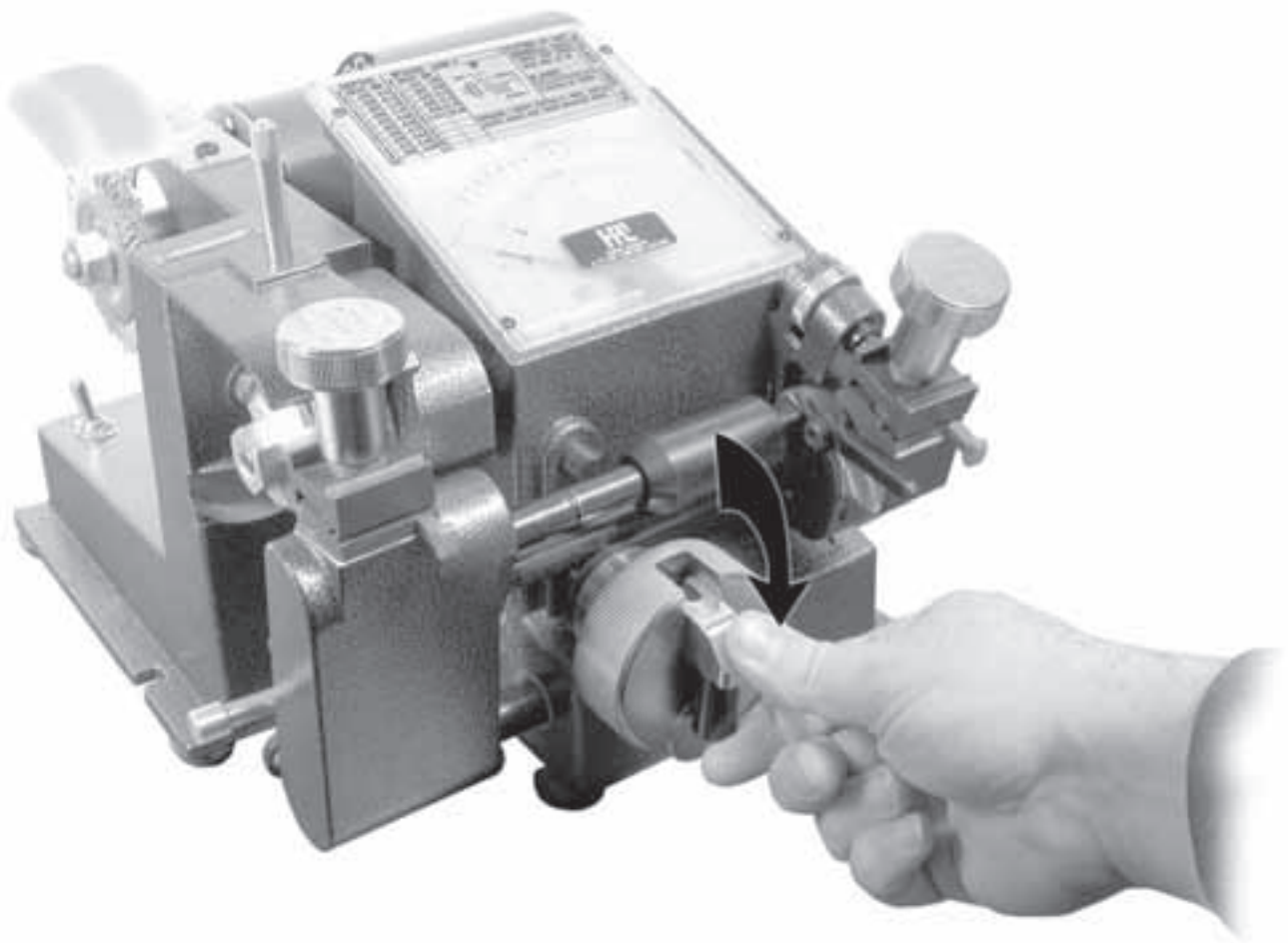
Turn both the Depth and Space Cranks counterclockwise to their outermost positions. Then, move the Code Bearing to the right until it comes to rest.



Rotate the Depth Crank completely inward. Then back it out only far enough so that the black handle is at the top (twelve o'clock position).

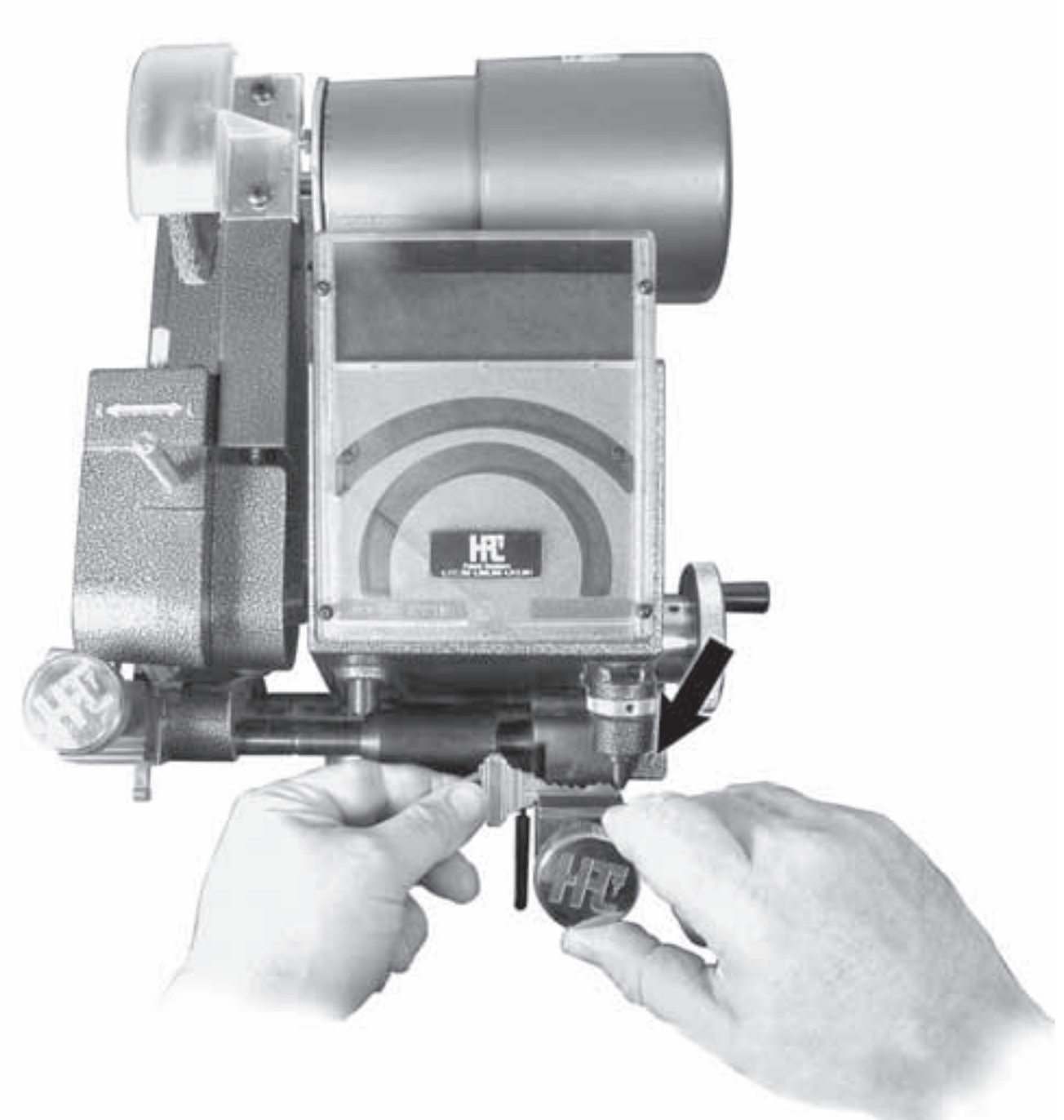


Depress the Push Pin to lock the Depth Crank into place.

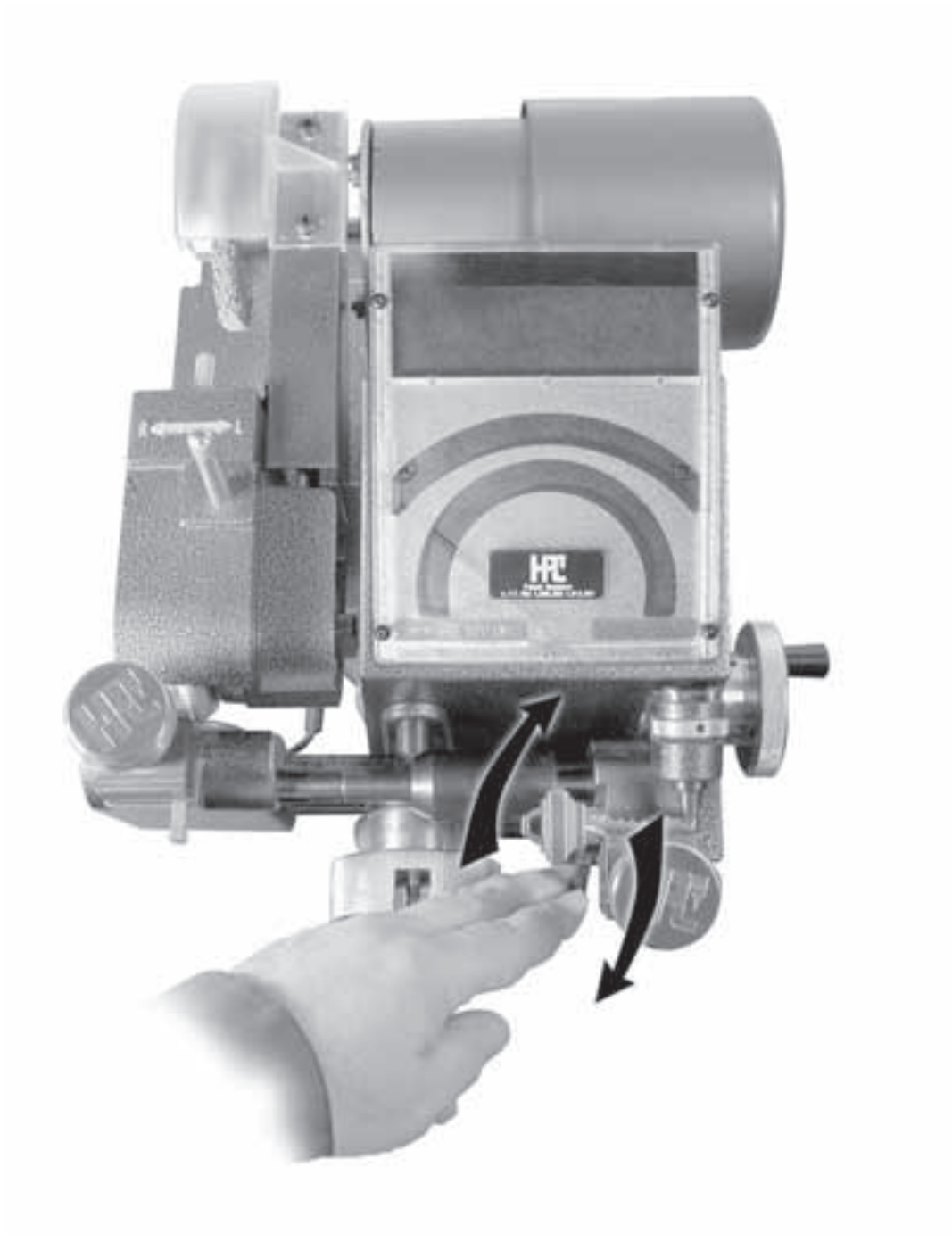


Bend down the black lever handle to engage the spring-loaded pin. You are now ready to cut keys by duplication.

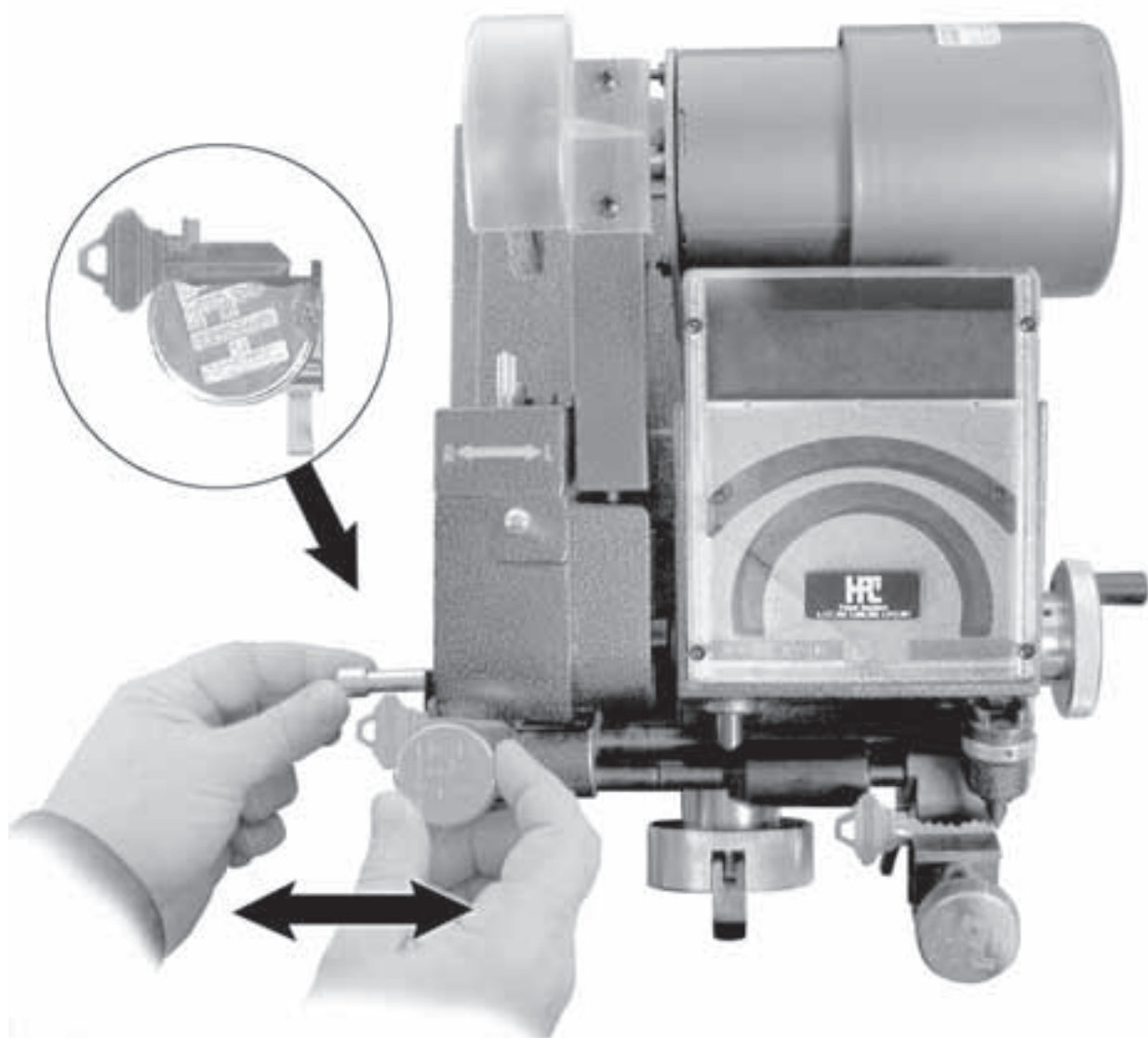
To switch from duplicating mode to code cutting, you must reverse the previous steps.



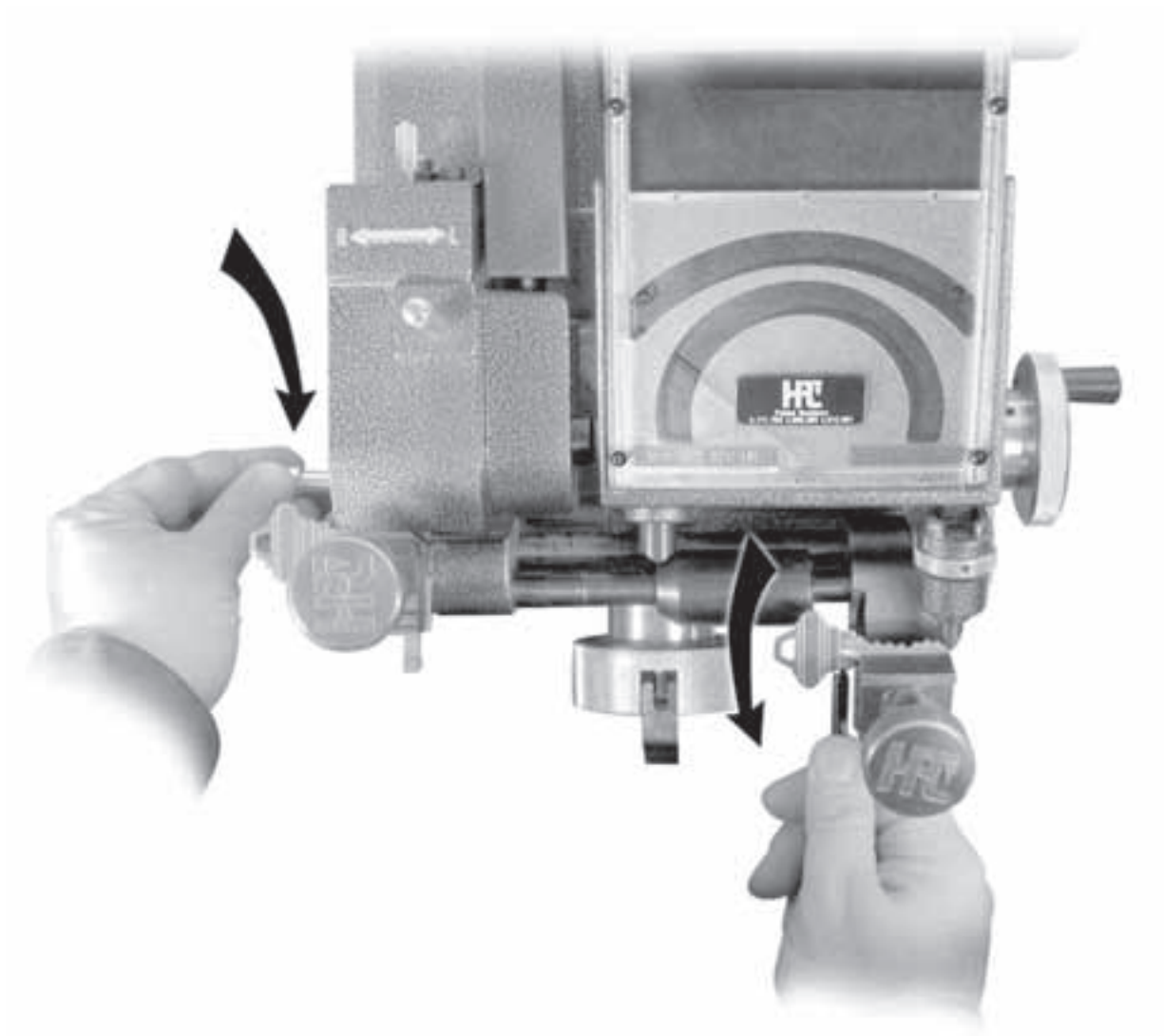
Insert the key to be duplicated.



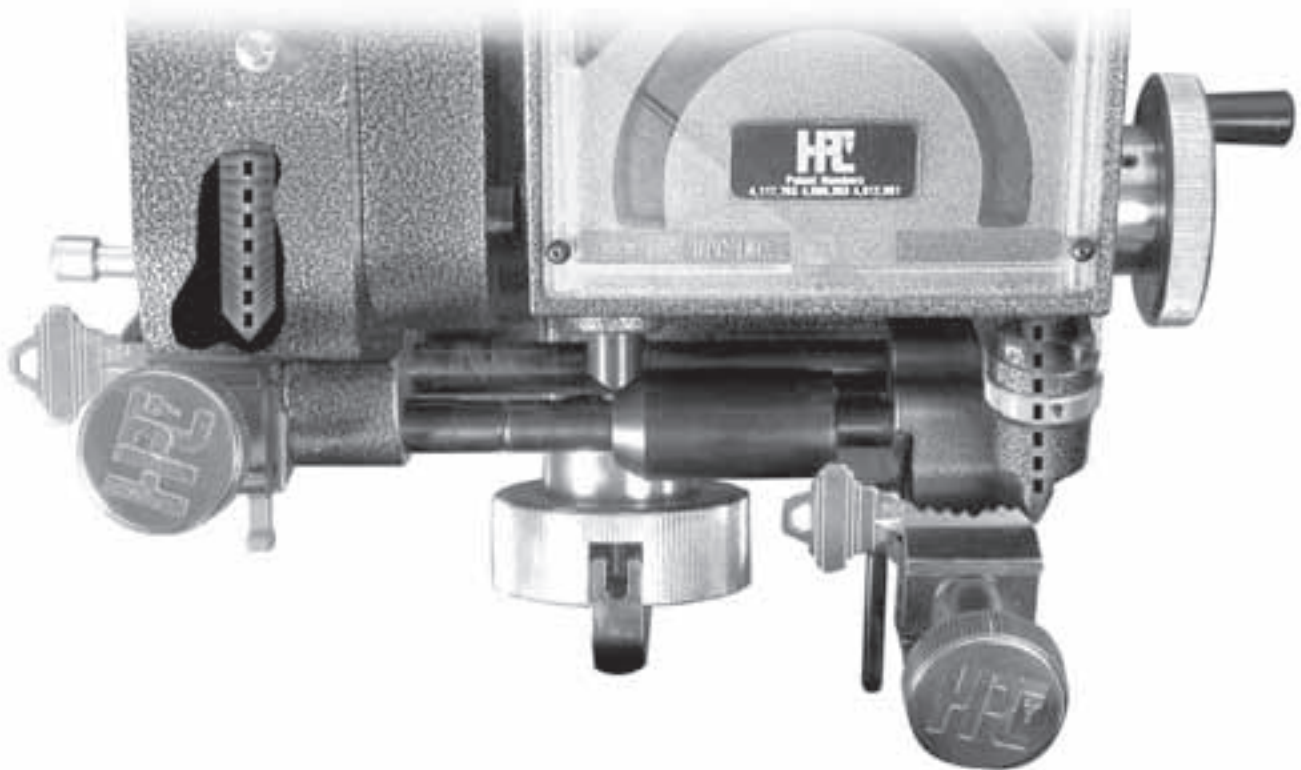
Gauge the key using the shoulder or tip gauges.



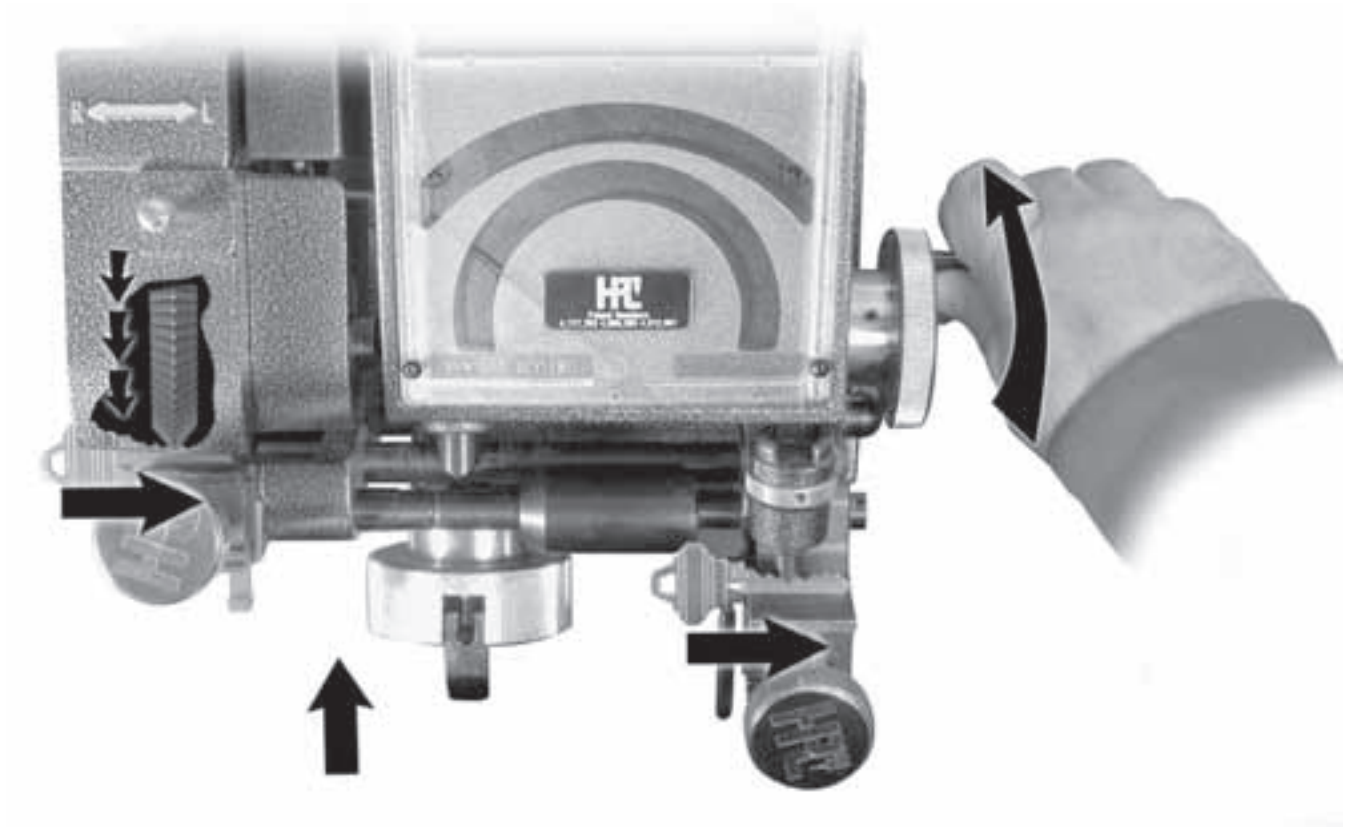
Insert and gauge the key blank to be cut. The blank must be gauged in the same manner as the original key.



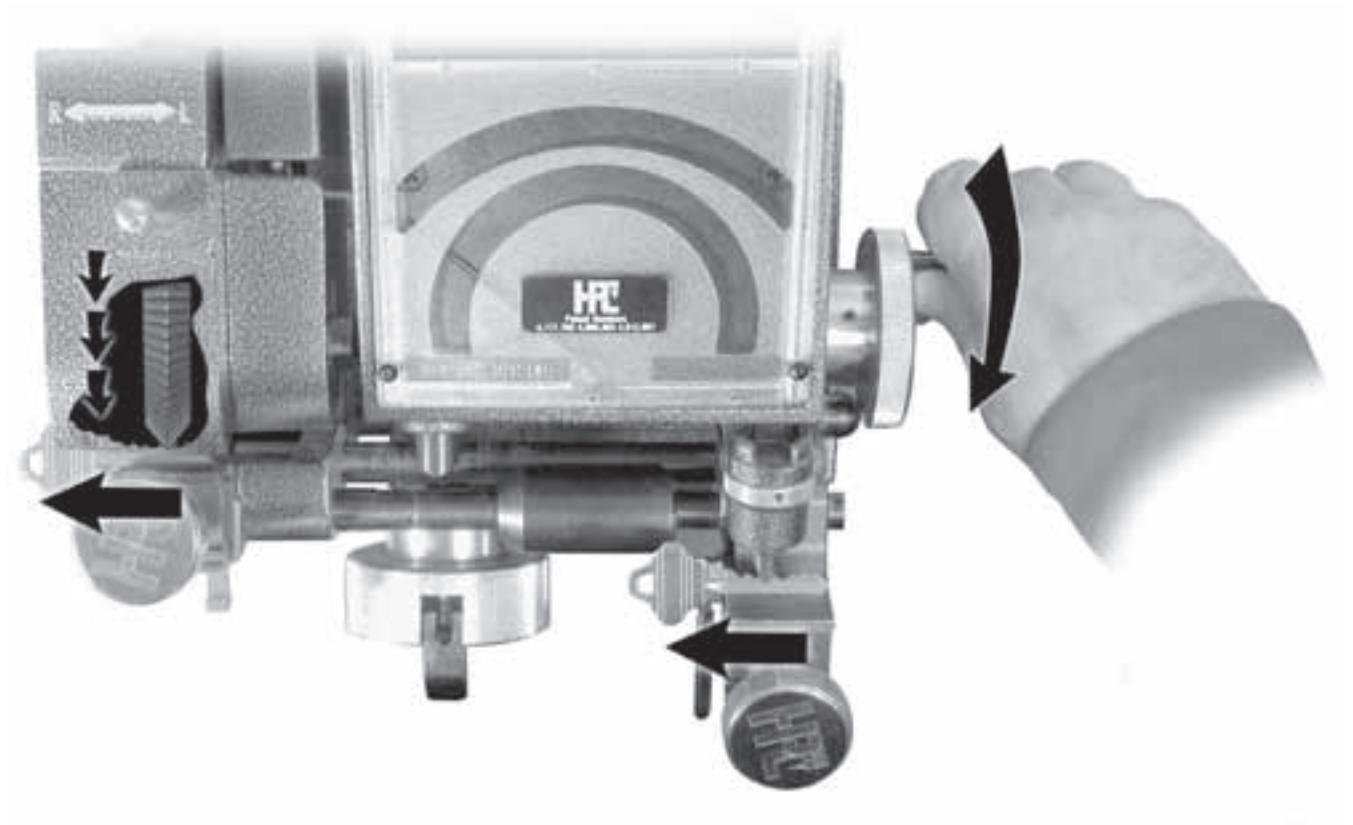
Important!
Move the gauges out of the way.



Note the proper positions of the keys before duplicating.



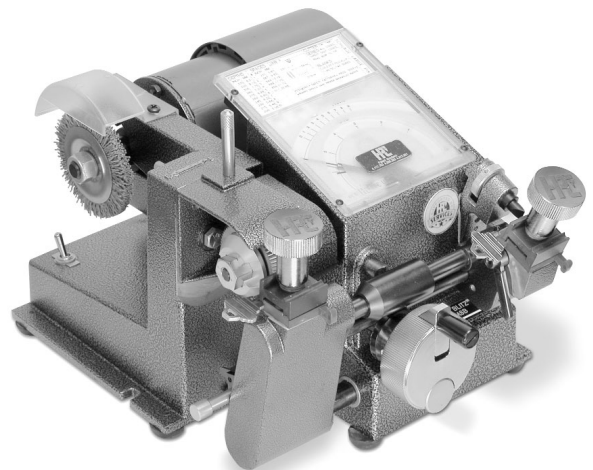
Turn machine on and rotate Space Crank forward to engage the key into the cutter. The machine will cut the key blank from the tip to the shoulder (the carriage spring will provide all the tension necessary).



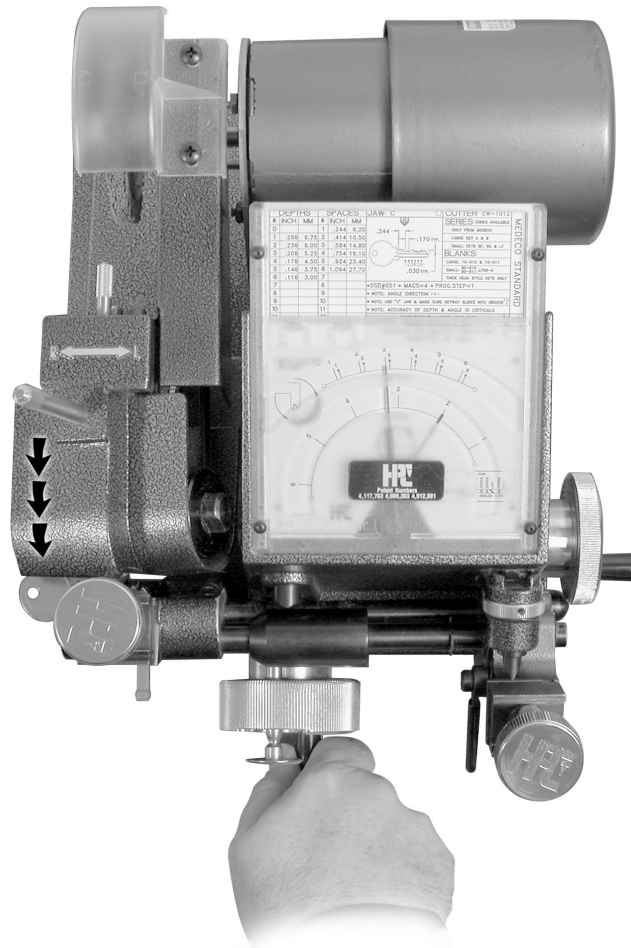
When all cuts have been traced, rotate the Space Crank backward, making a clean-up cut. Continue rotating the crank until the carriage moves away from the cutter and tracer. Deburr the key if necessary.

6.0

ANGLE CUT KEYS



CUTTING KEYS BY CODE 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.

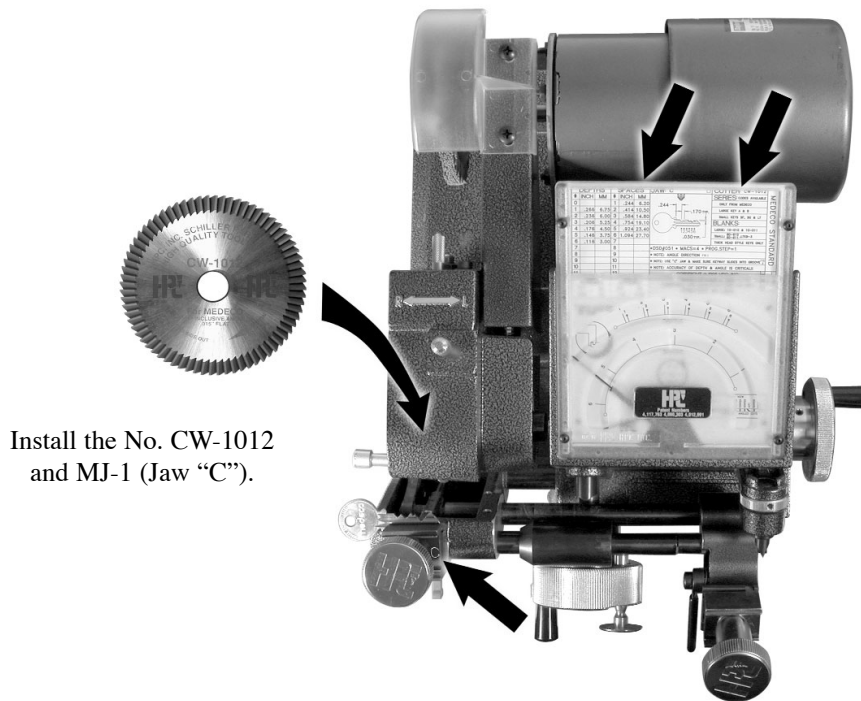
•REQUIRED EQUIPMENT (Sold Separately)

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

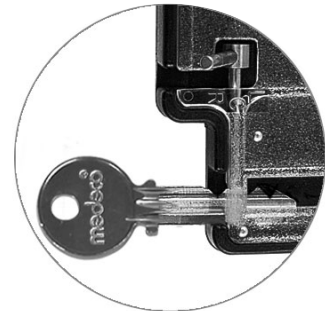
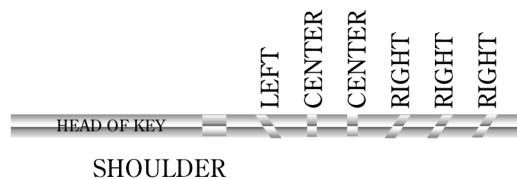
Biaxial keys only require the CW-1012 cutter, not the MJ-1 "Jaw C".

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

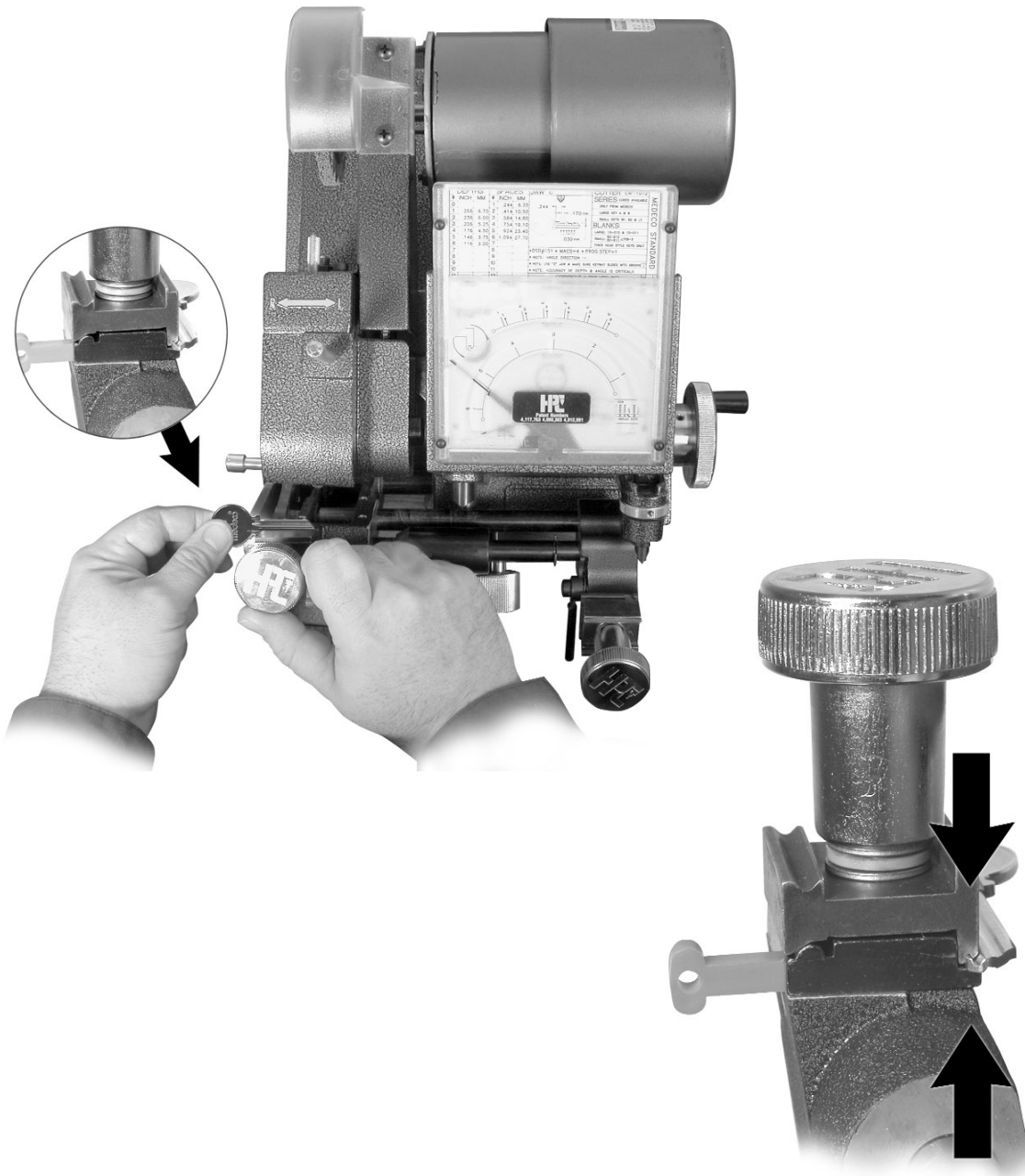
CUTTING KEYS FOR MEDECO® DECODING AND CUTTING THE KEY



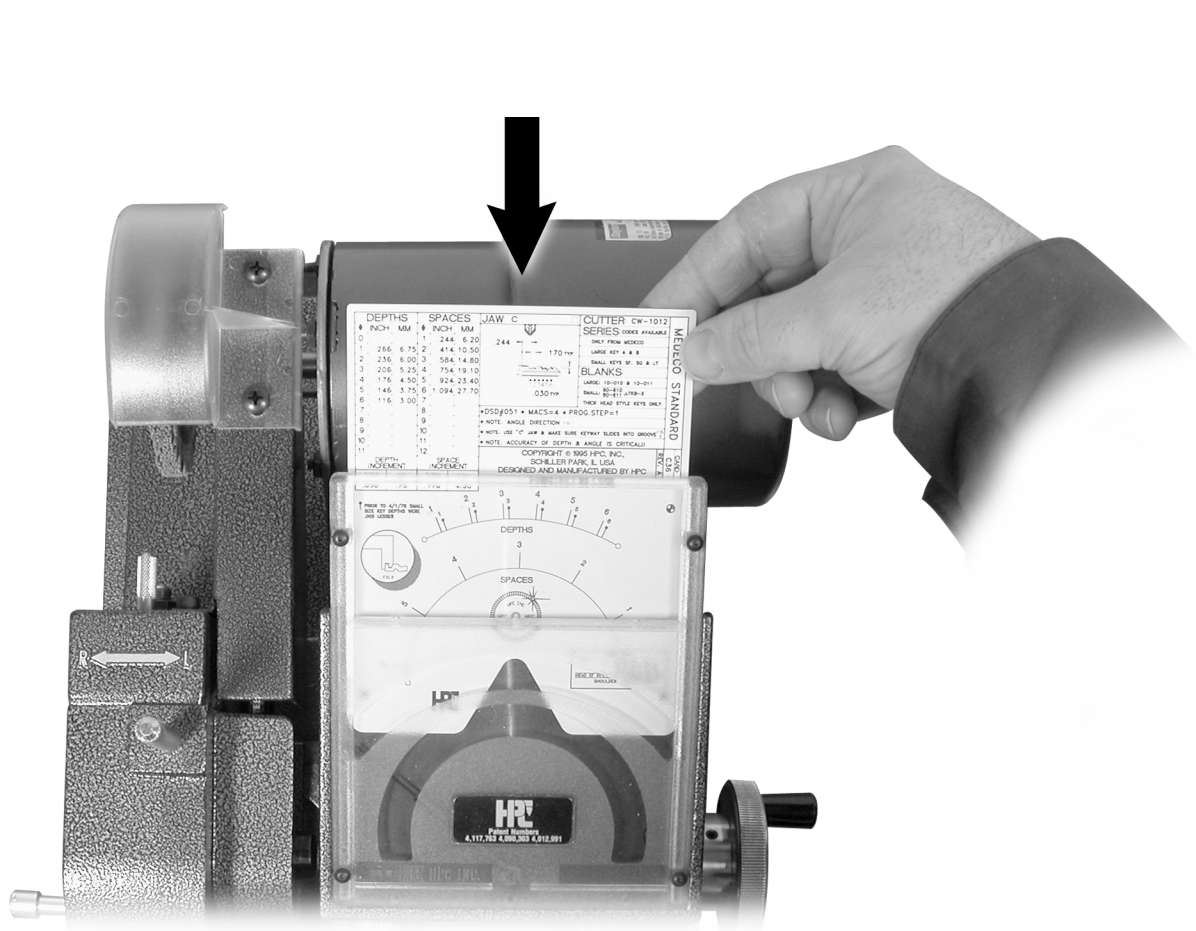
EDGE VIEW



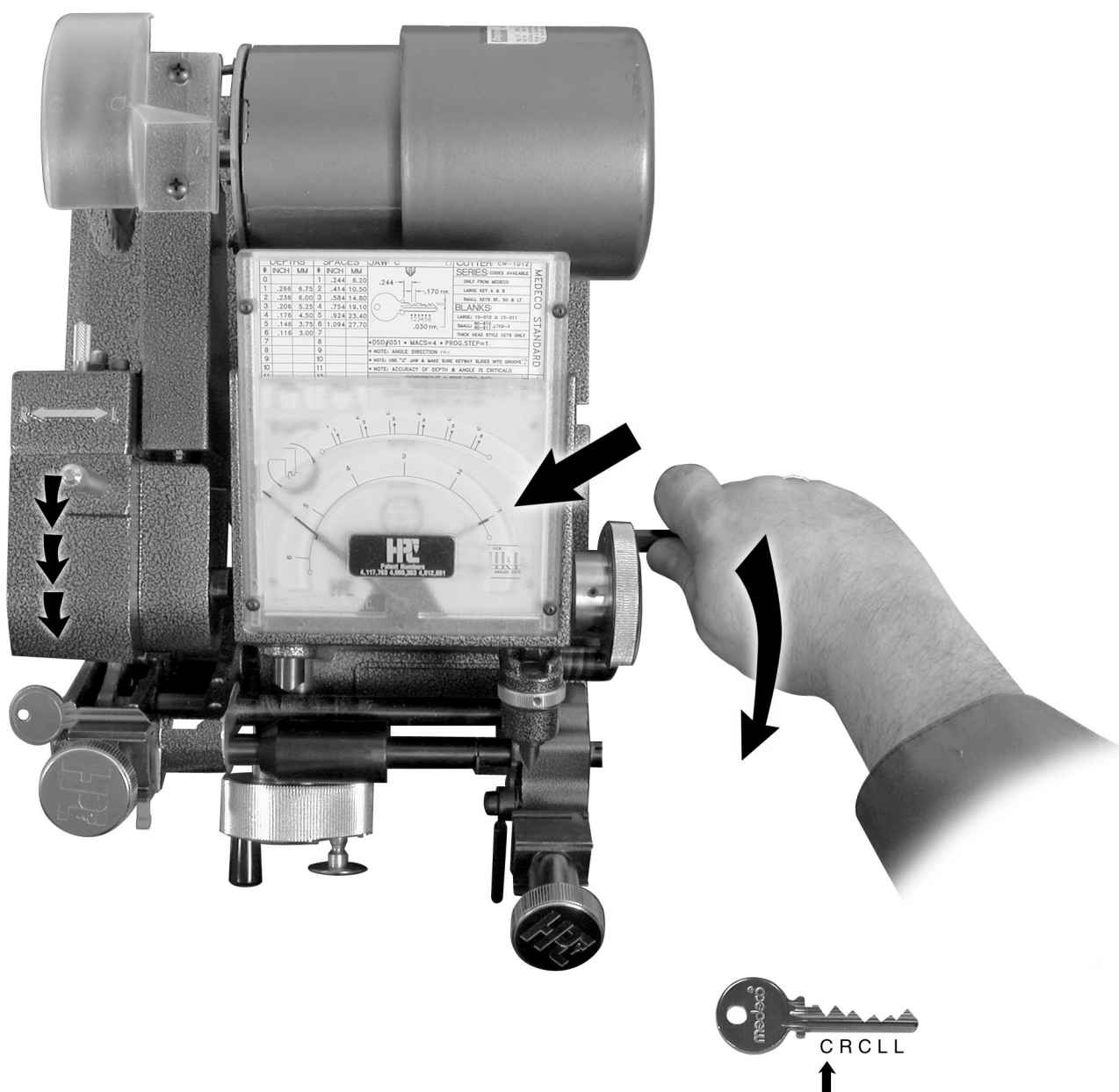
The depths and angles must be decoded prior to cutting the key. Depths can be measured with a knife-edge caliper, a key micrometer or with one of the special decoders commercially available. The HPC Pocket Sized Decoder, (No. HKD-75 pictured above), in addition to decoding depths and angles for Medeco®,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



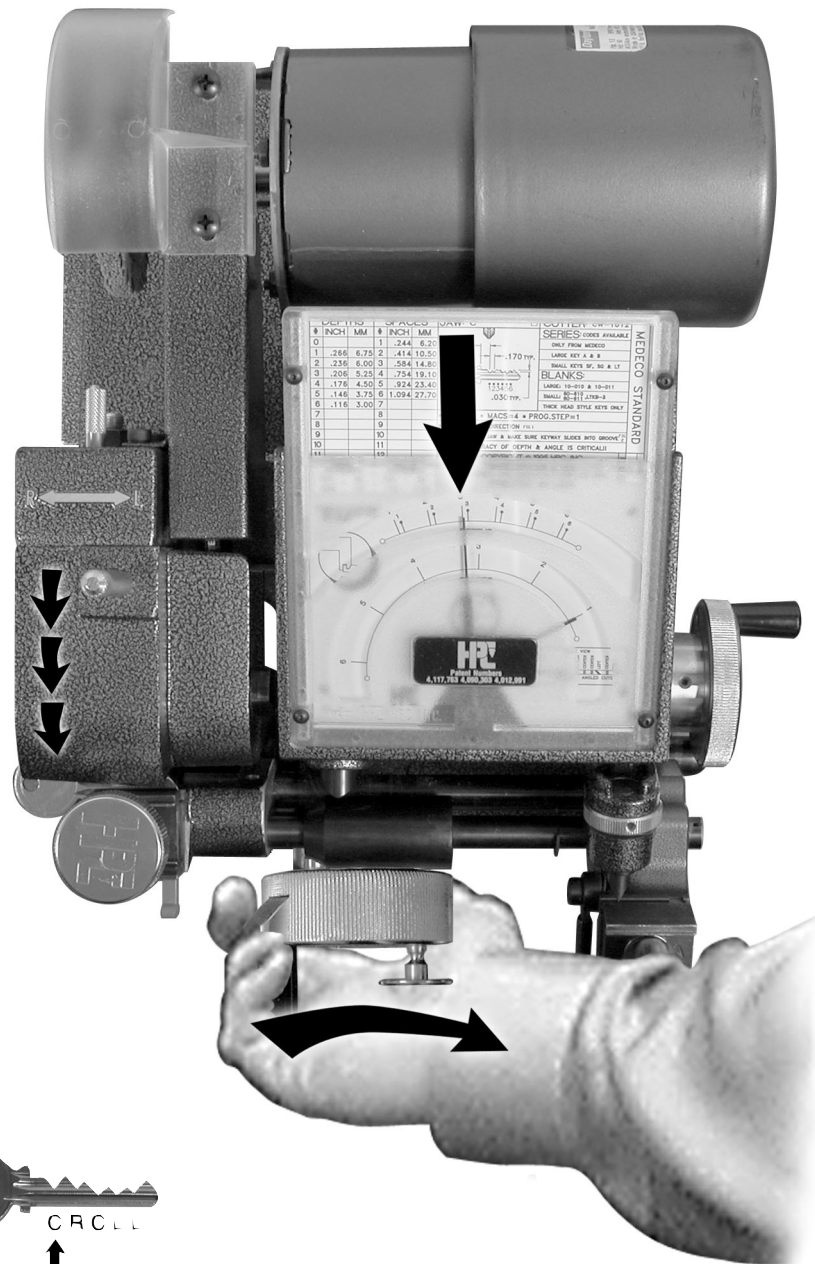
Gauge the key from the shoulder, making sure the key grooving and special jaw milling are nested together.



Insert Code Card No. C36 for Medeco®.

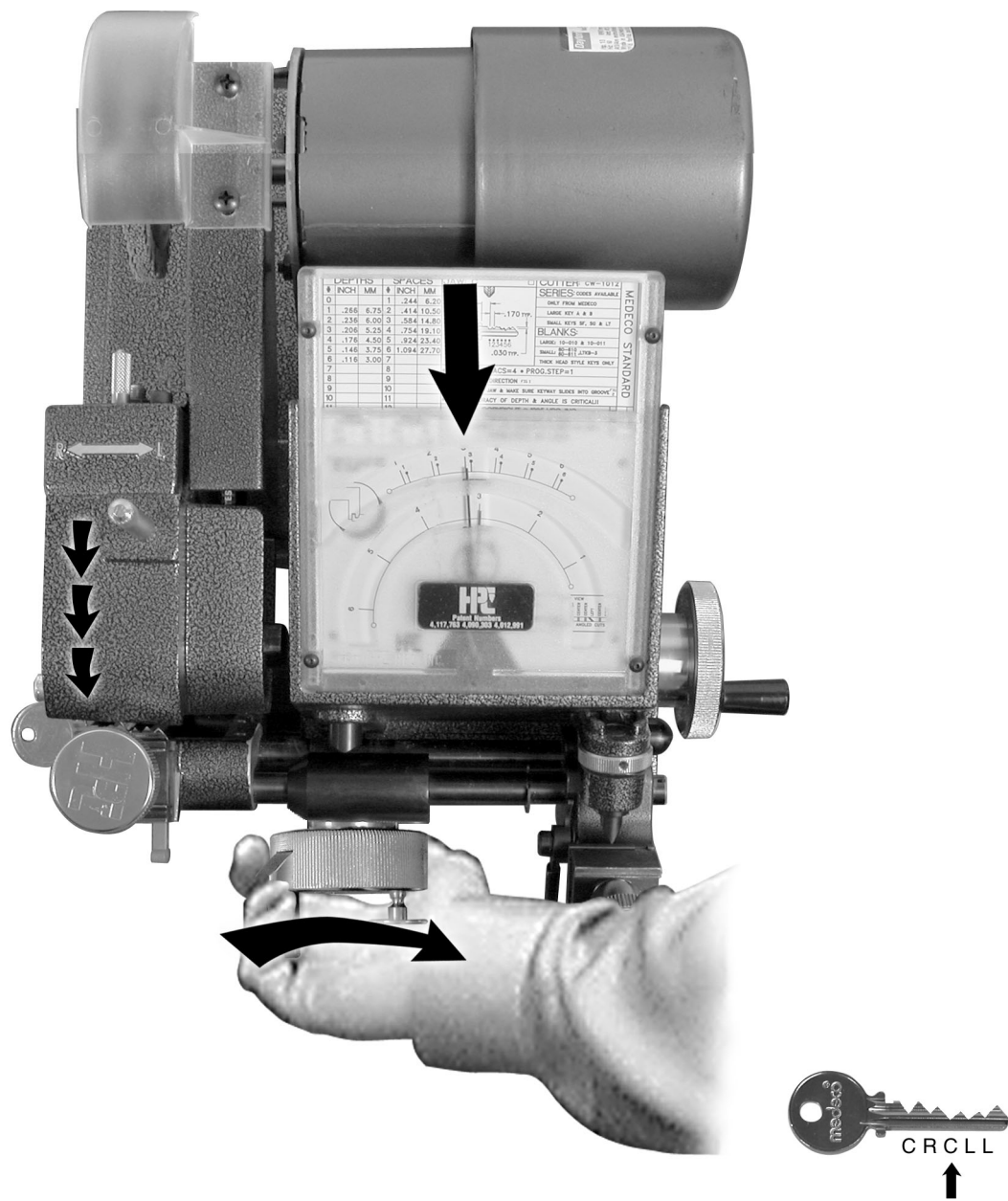


Turn the Space Crank as required to move the key into the correct space positions for cuts with center angles. The Cutter Head is not swiveled for center cuts. Make all center cuts first.



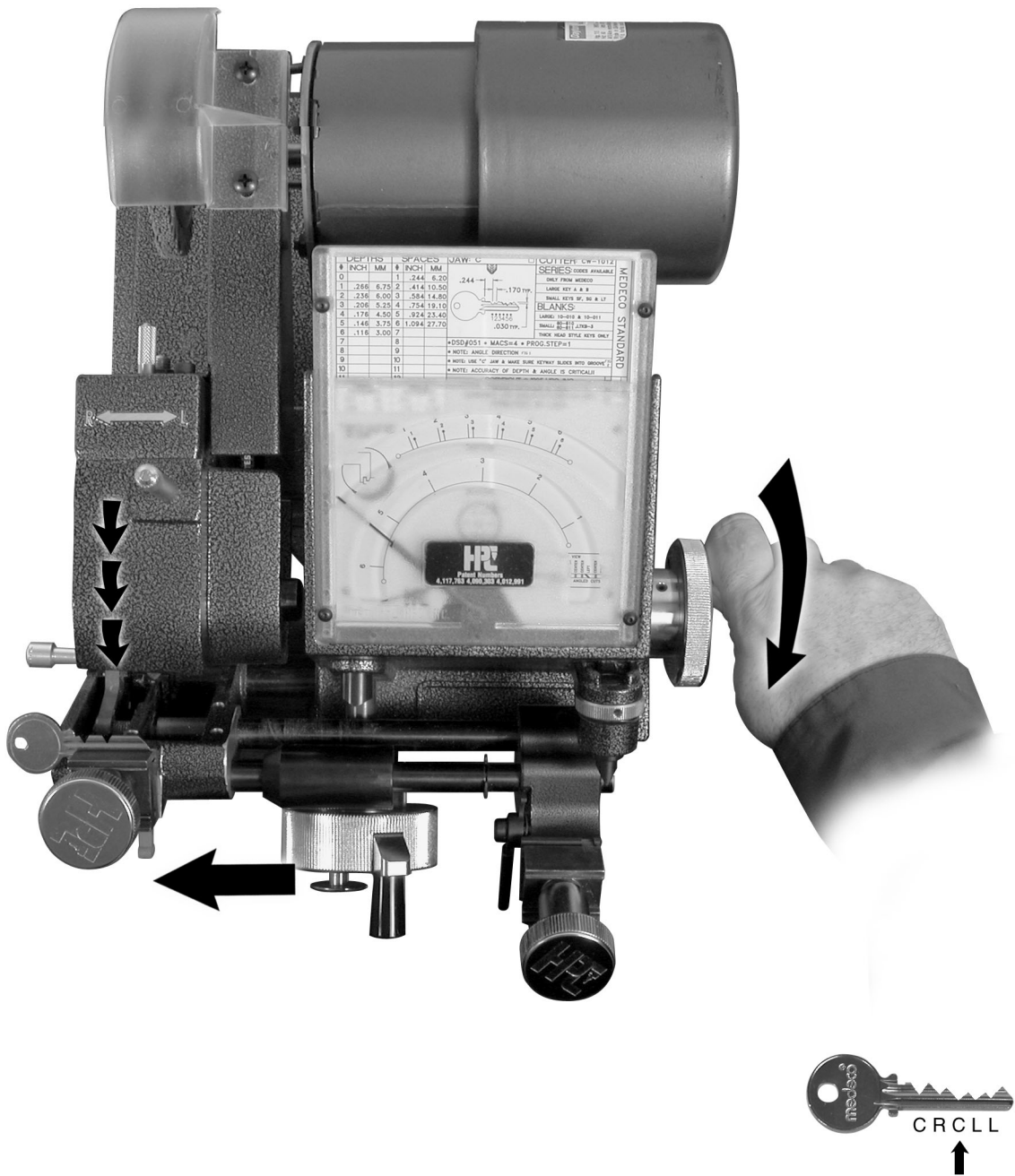
Cut first center cut.



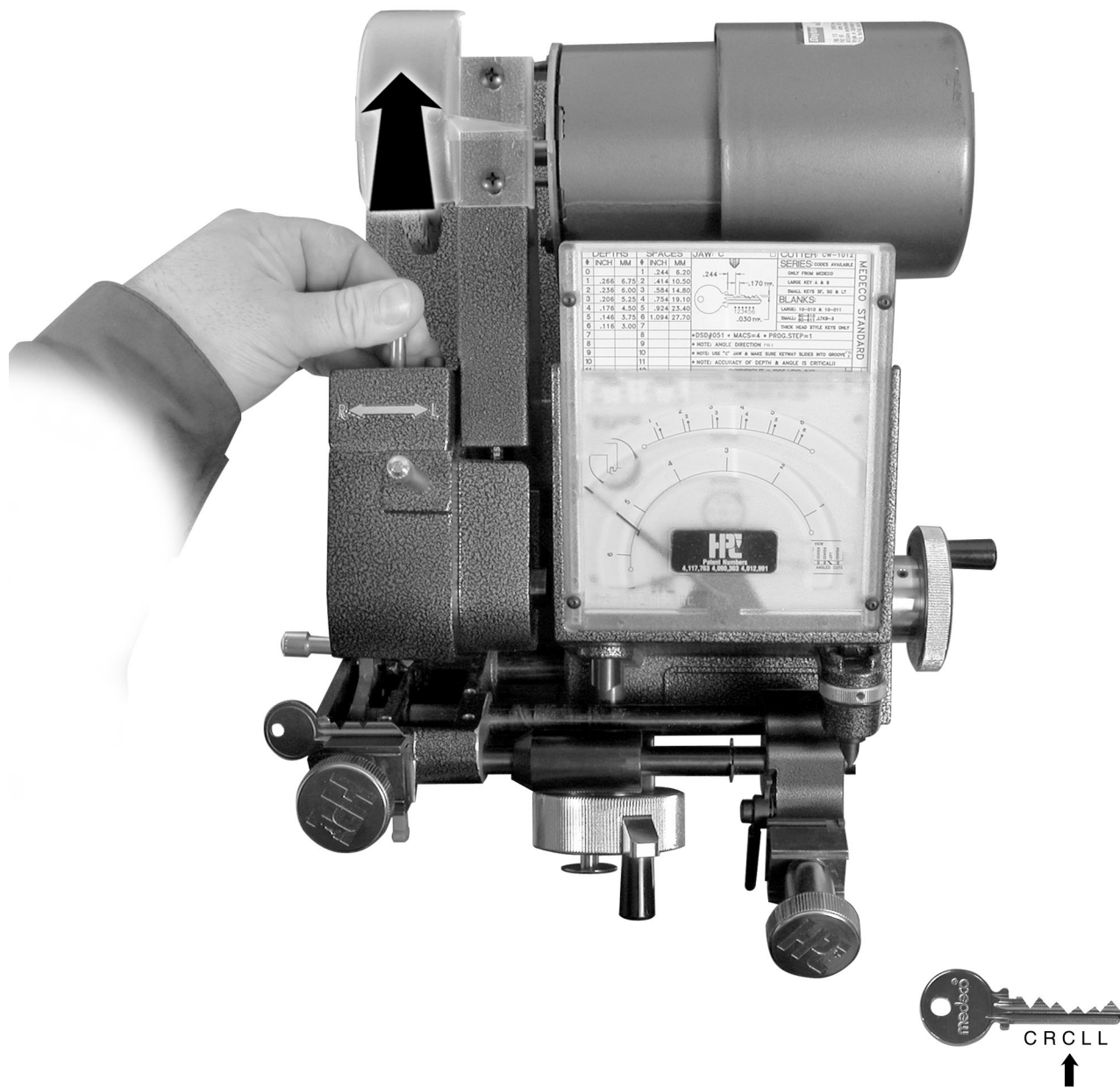


Move to next center angle cut and plunge.

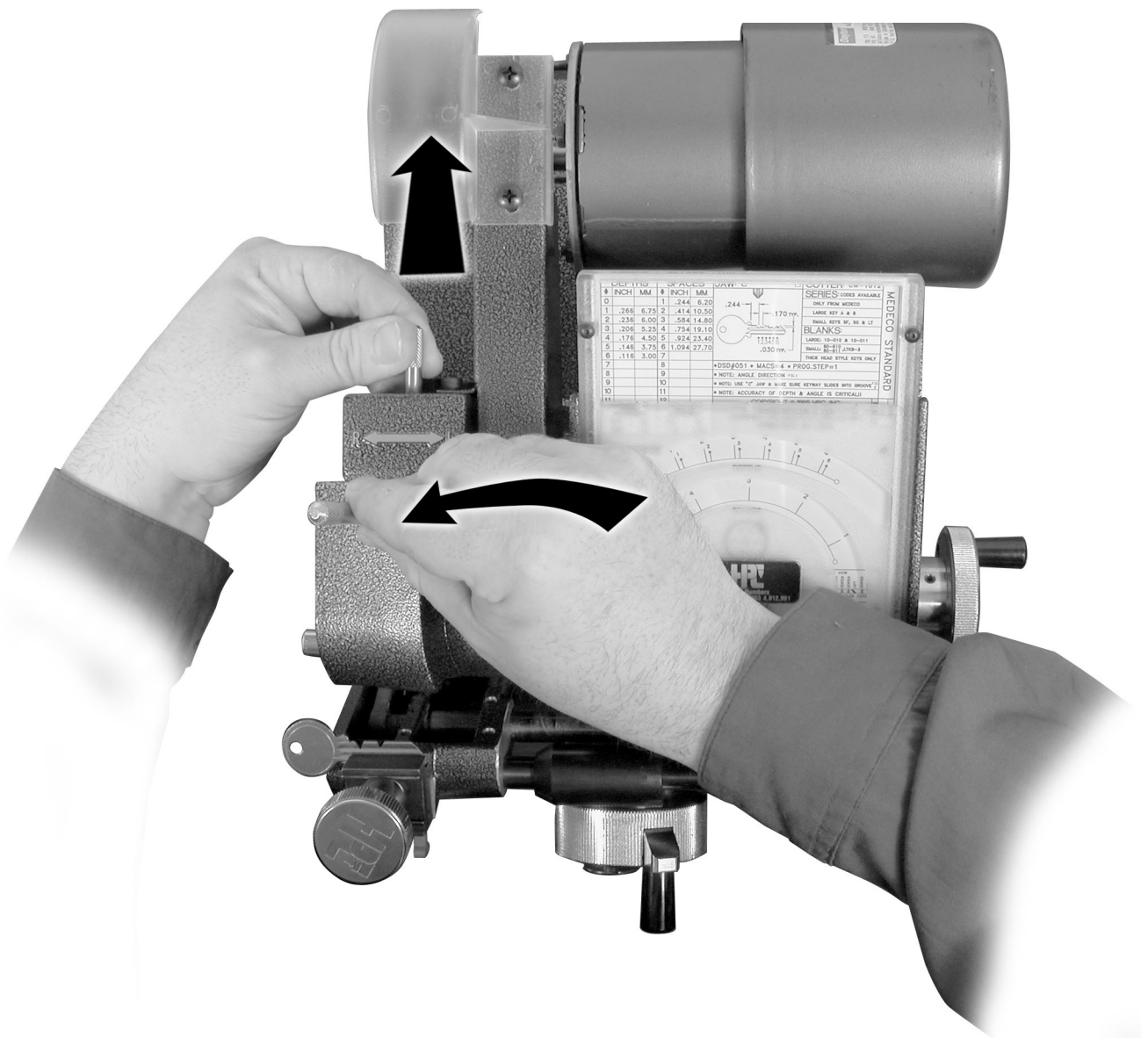




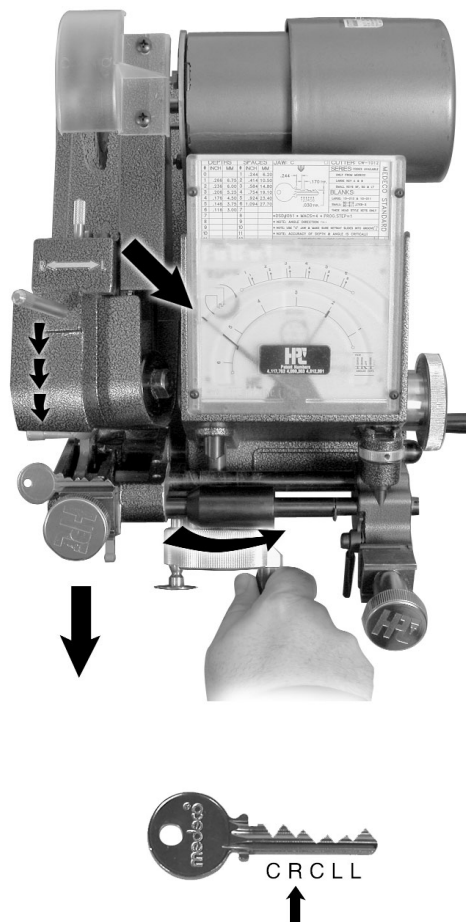
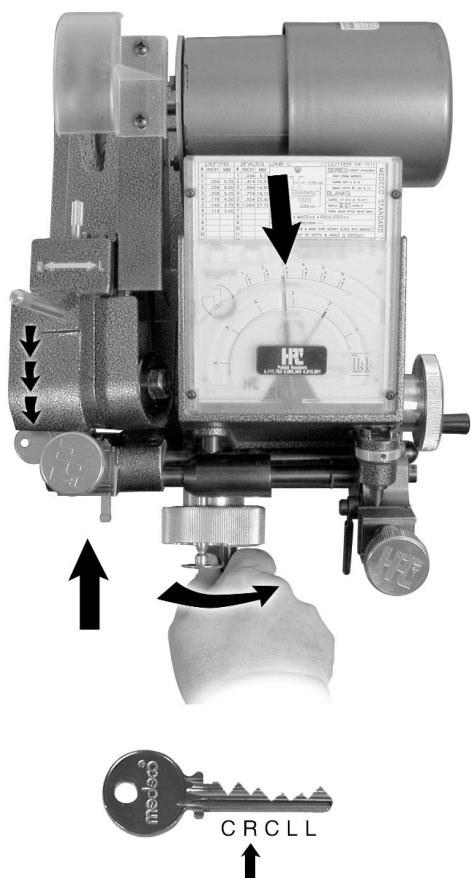
Move away from cutter.



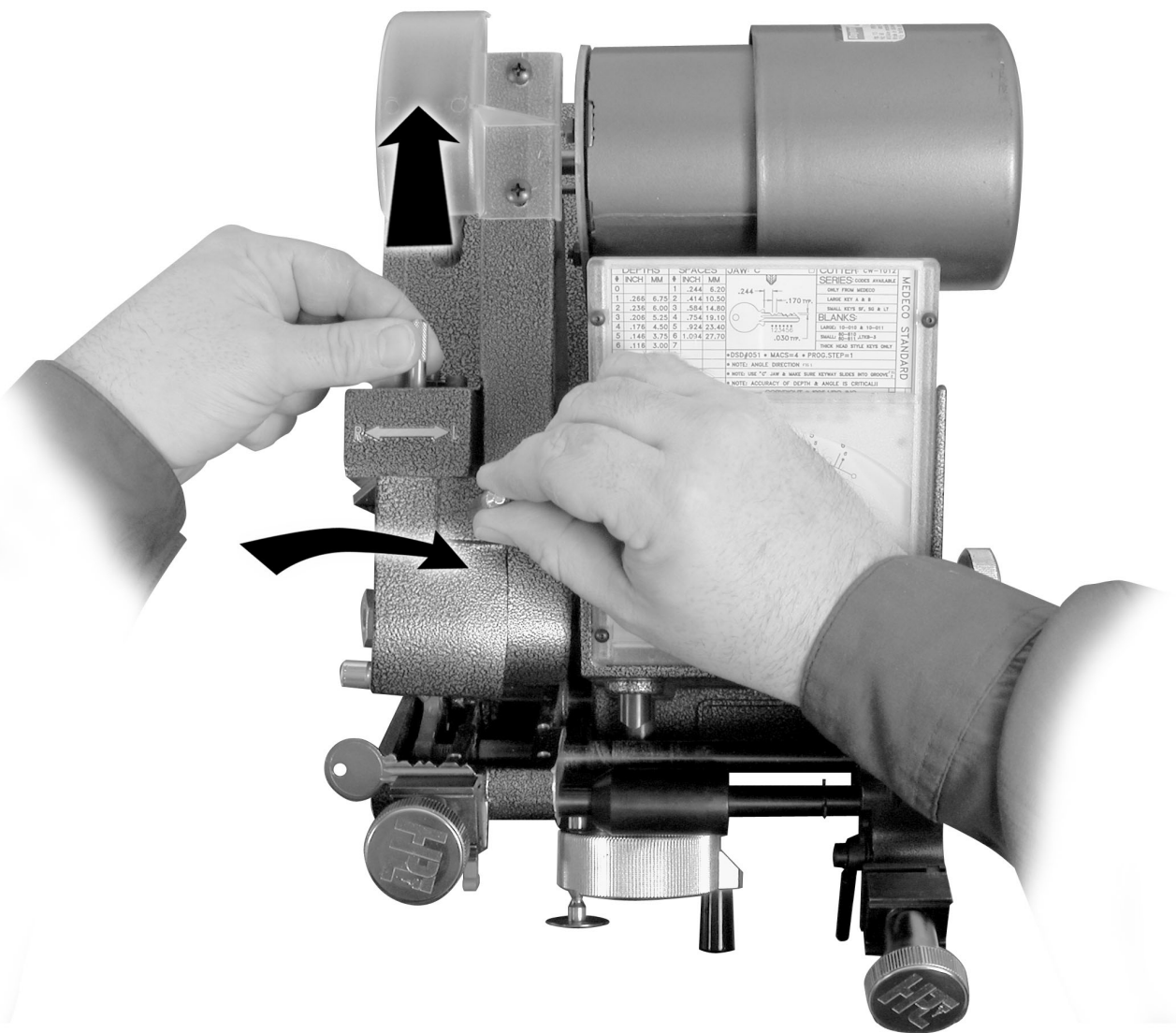
Turn off the machine. Pull outward on the Angle Index Pin.



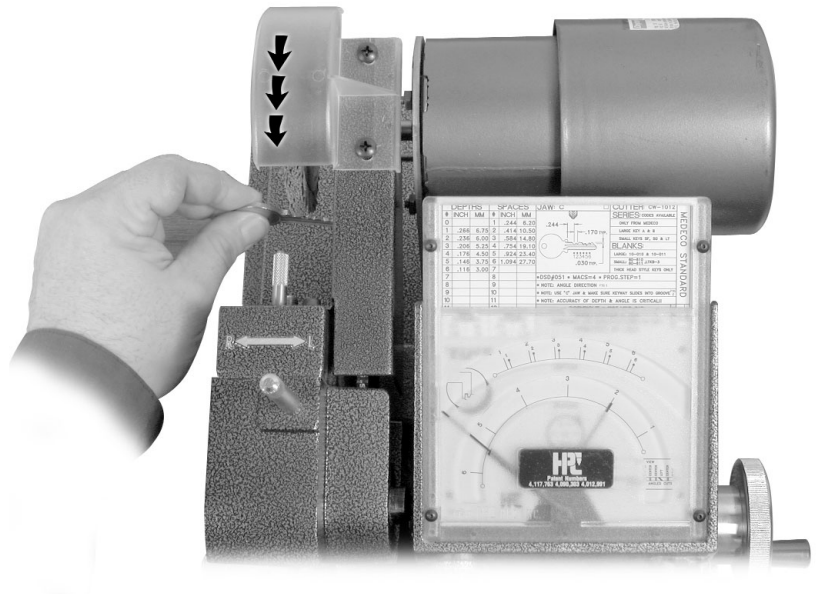
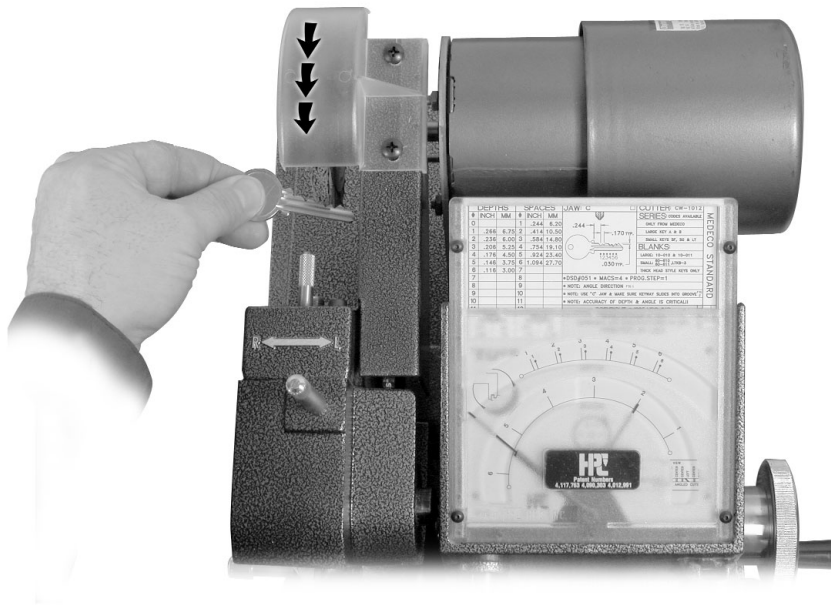
Swivel the Cutter Head by the Angle Pivot Pin, as indicated by the arrows.



Be sure the Index Pin is relocked into the Cutter Head before operating. Make all right angle cuts at this time.



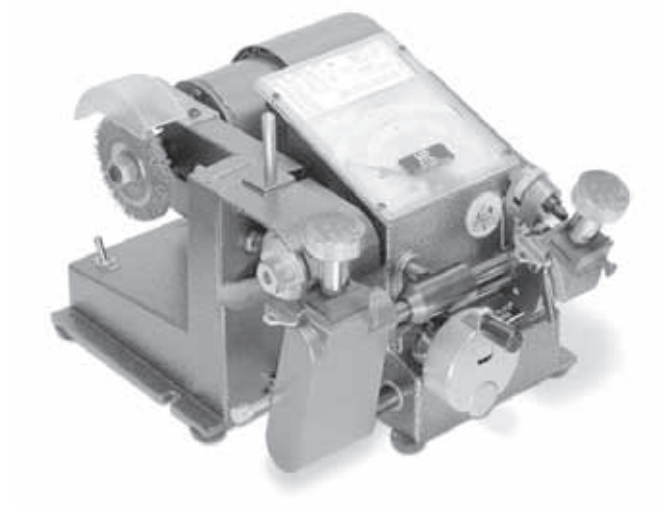
Turn off the machine and repeat the same procedure for left angle cuts.



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.

7.0

CALIBRATION



ATTENTION: PLEASE READ BEFORE PROCEEDING.

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

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

Quite often code numbers are mis-read, locks are coded incorrectly when they are new, and code references 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, proceed.

It is recommended to perform the calibration procedures in this sequence:

1. Code Cutting

- A. Tip Gauge Spacing
- B. Shoulder Gauge Spacing
- C. Depths

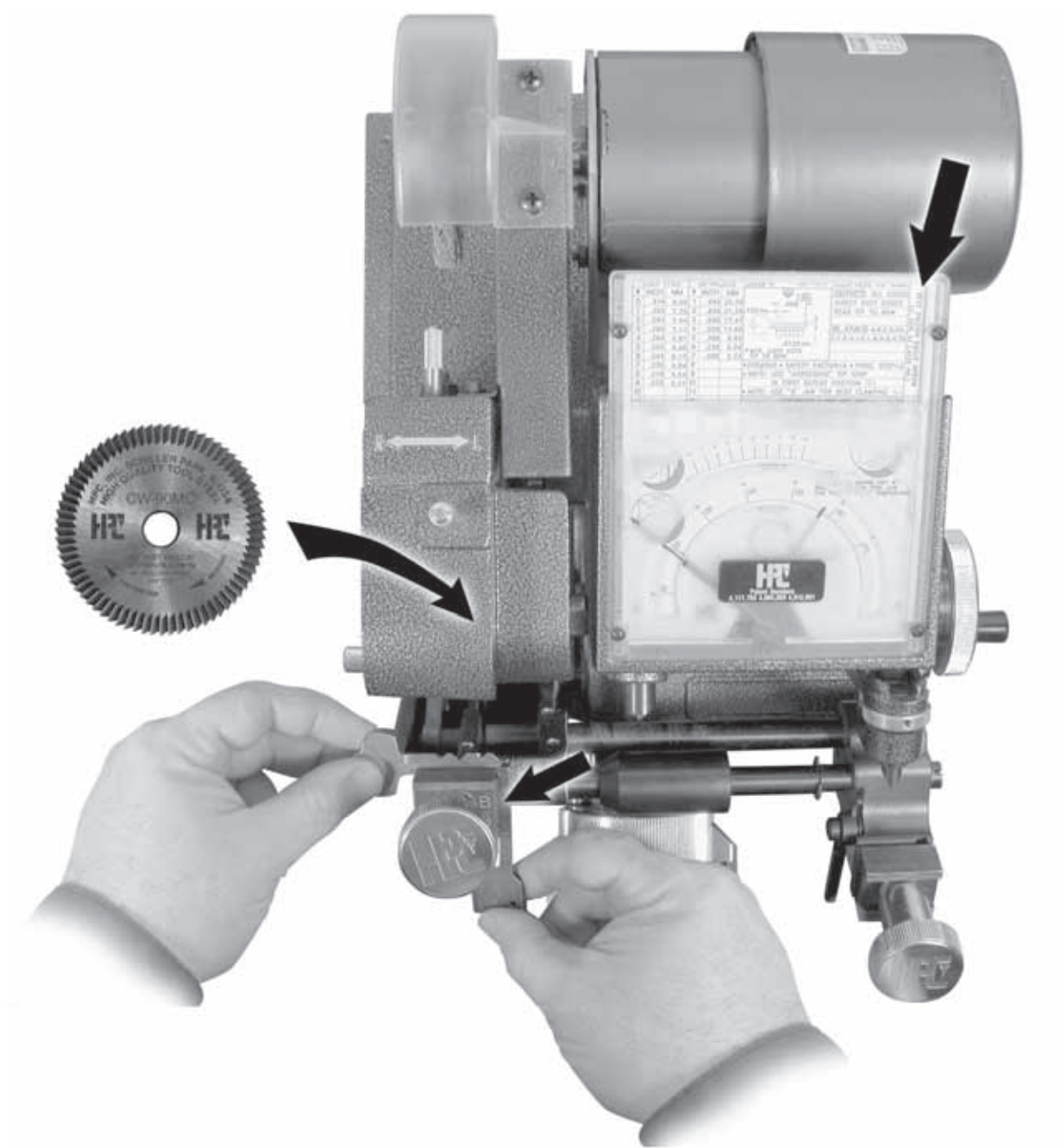
2. Duplicating

- A. Tip Gauge Spacing
- B. Shoulder Gauge Spacing
- C. Depths

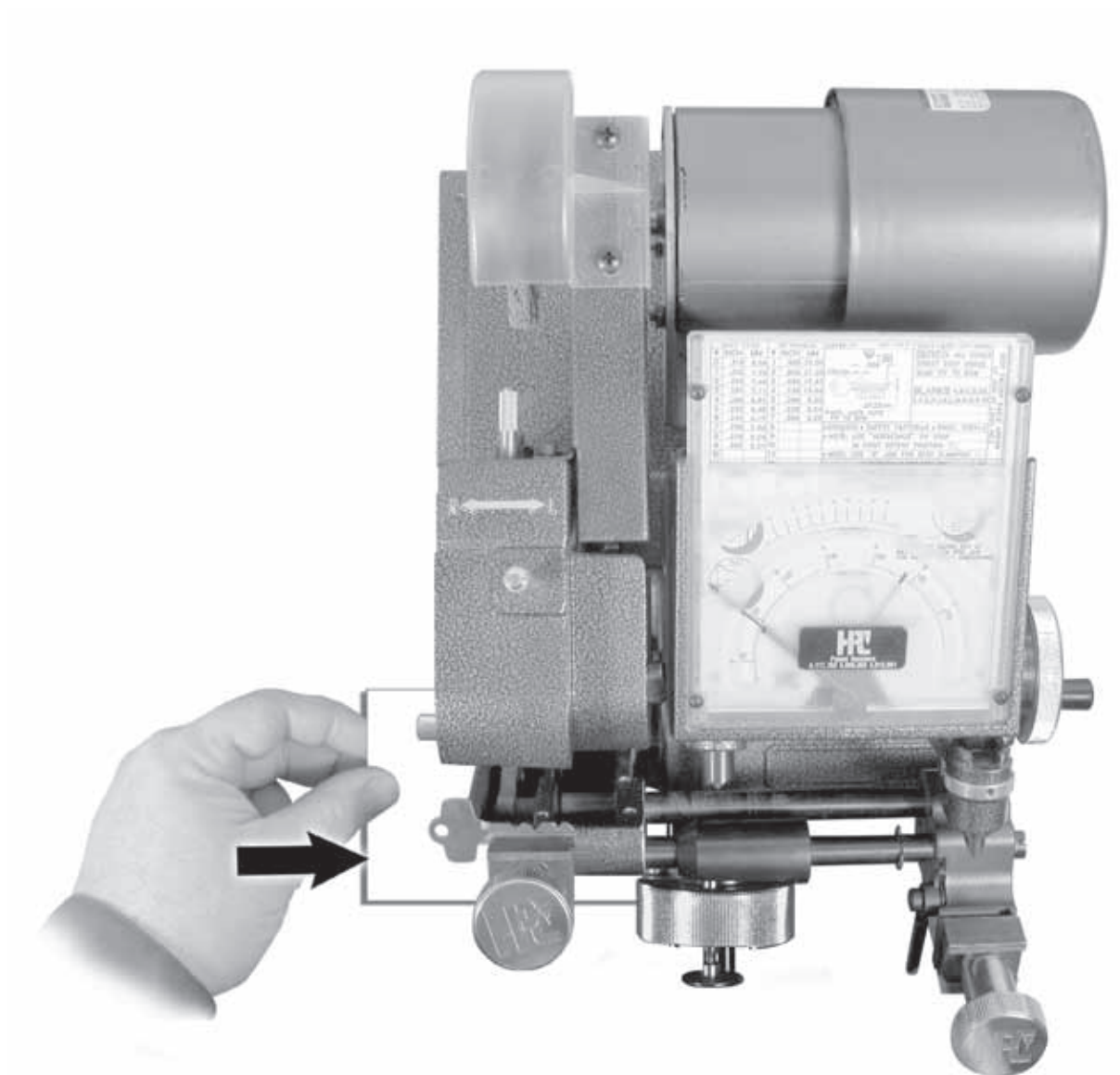
7.1 Tip Gauge Calibration (for Code Cutting):



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

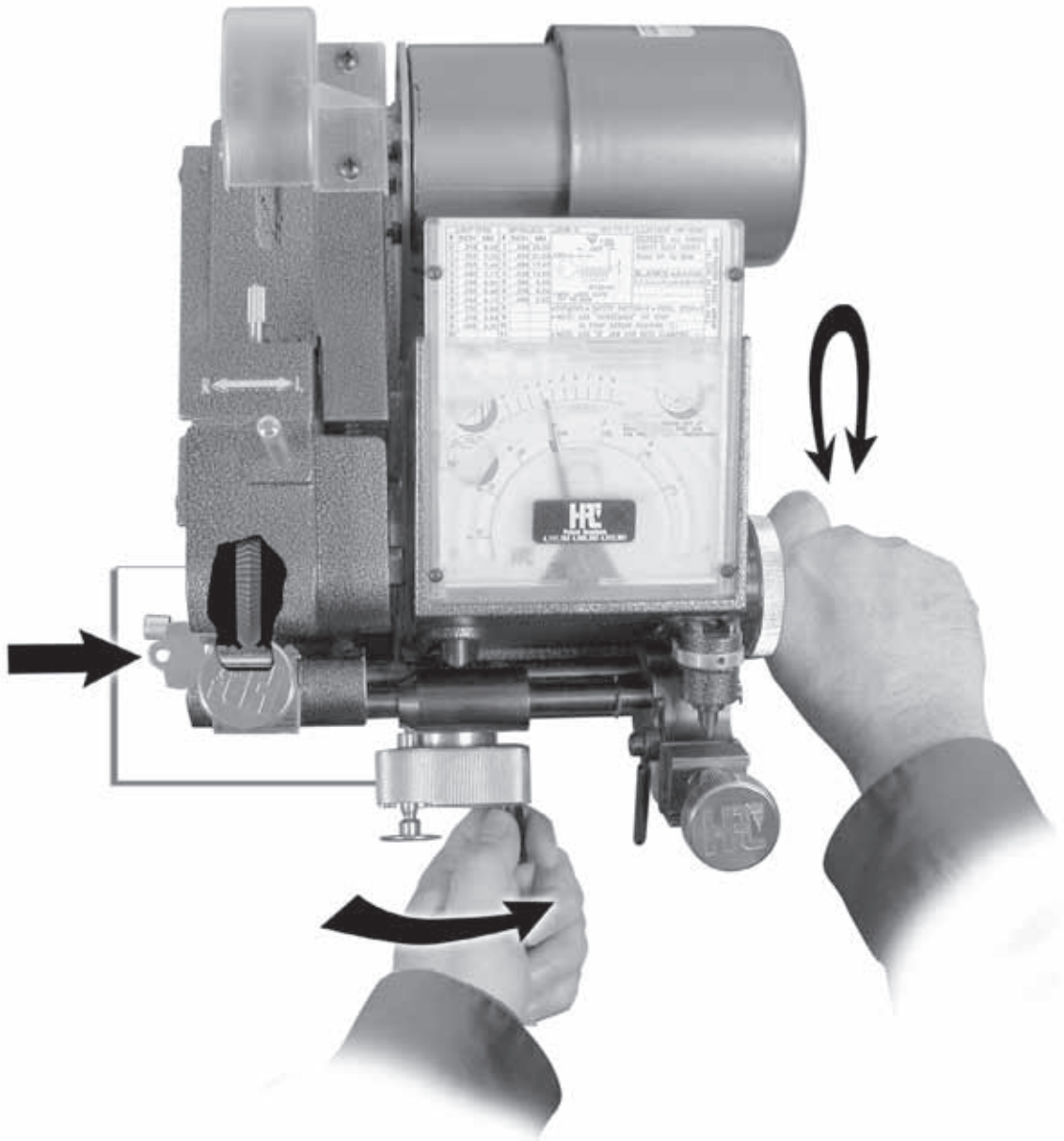


Put on the correct cutter and insert the correct card.
Then, gauge and clamp the key.

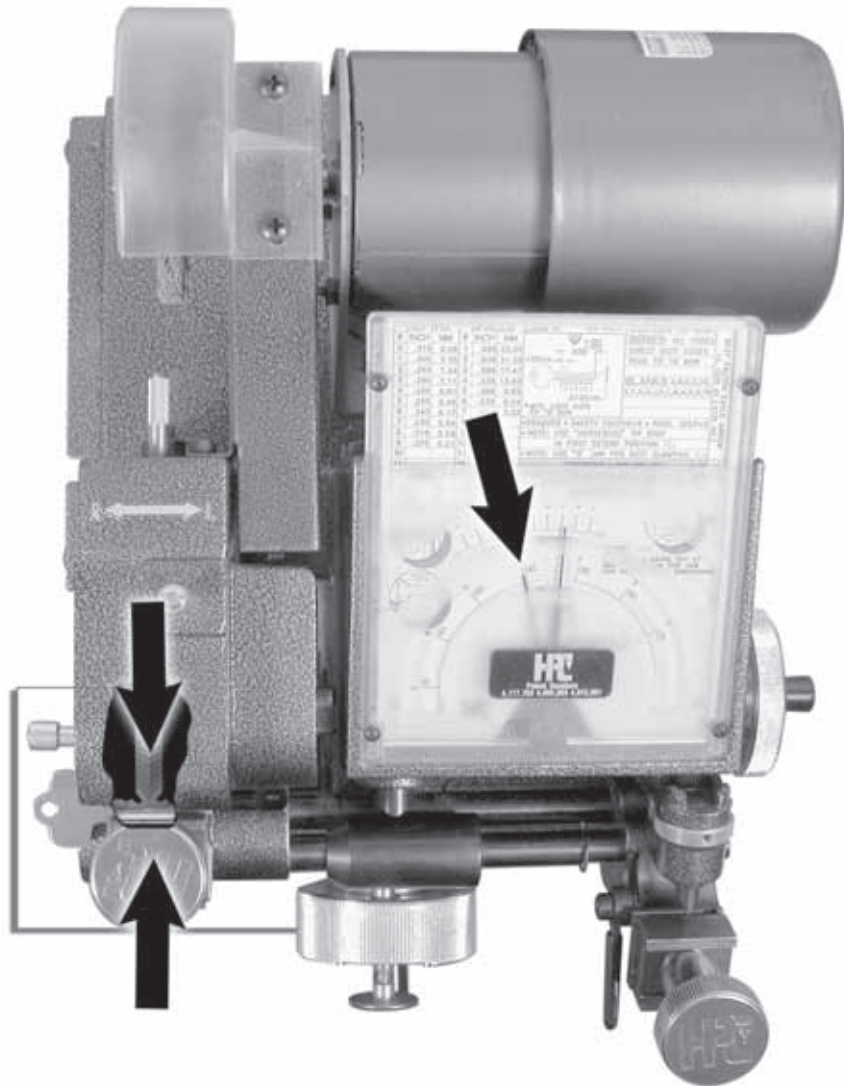


Place a white piece of paper beneath the cutter for improved vision of alignment.

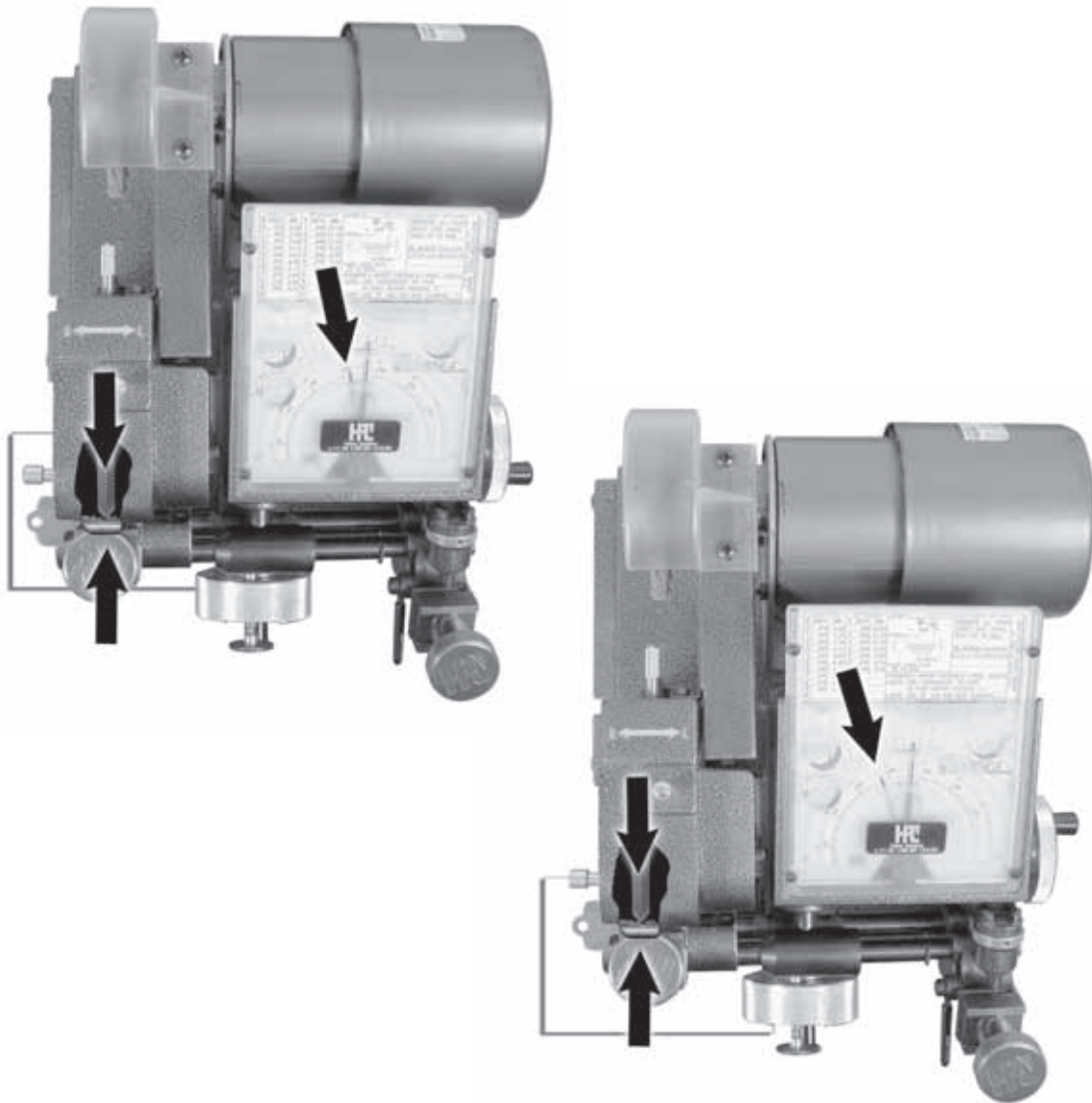
NOTE: Unplug machine for these and the following operations.



Rotate Space 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.)



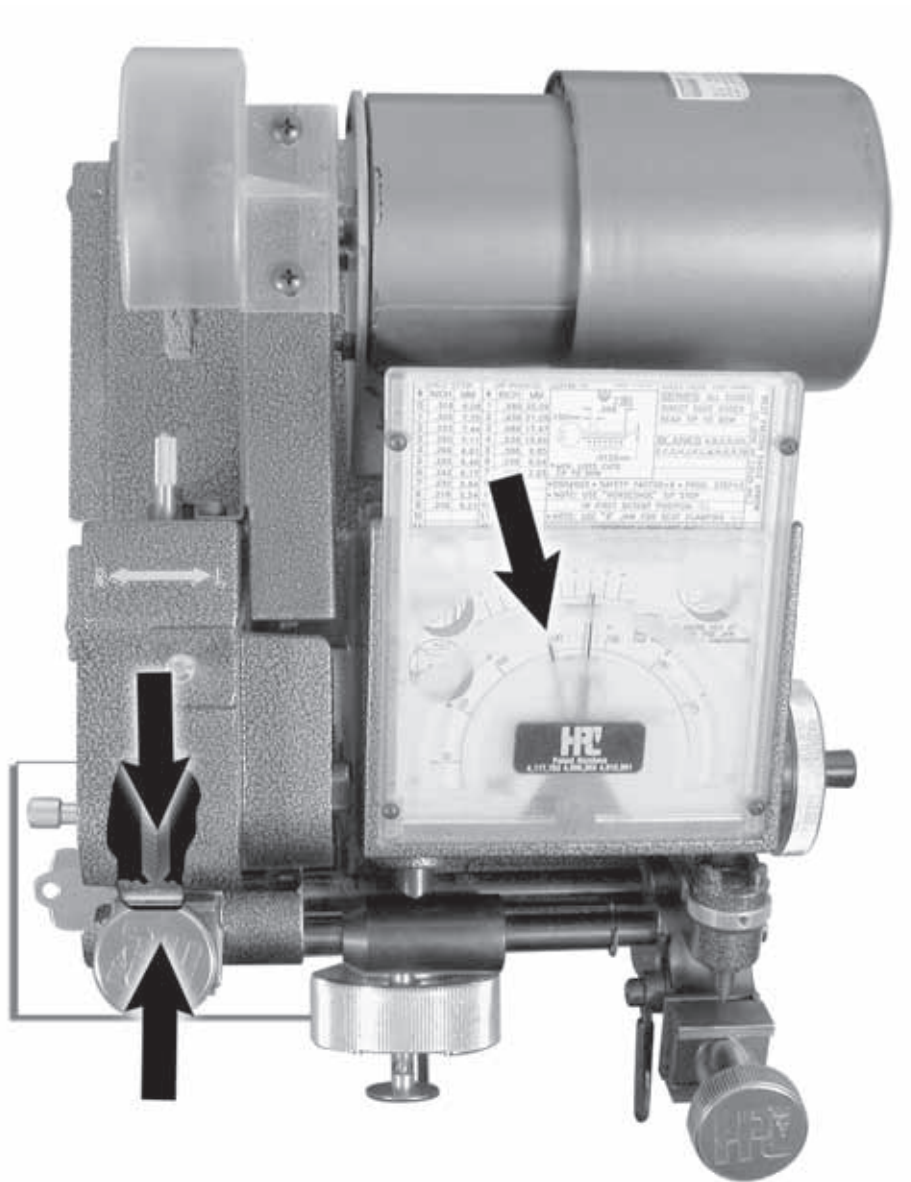
If the space indicator needle is centered over the corresponding space mark, the space adjustment is correct. Go no further.



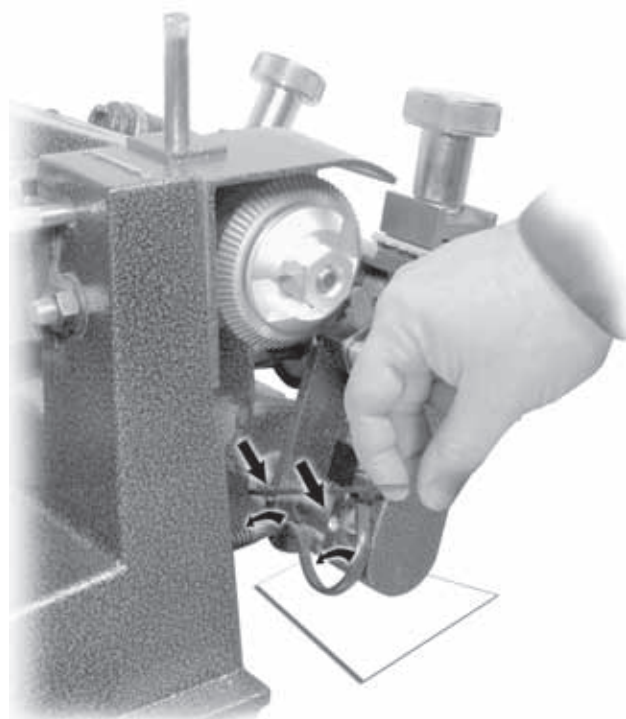
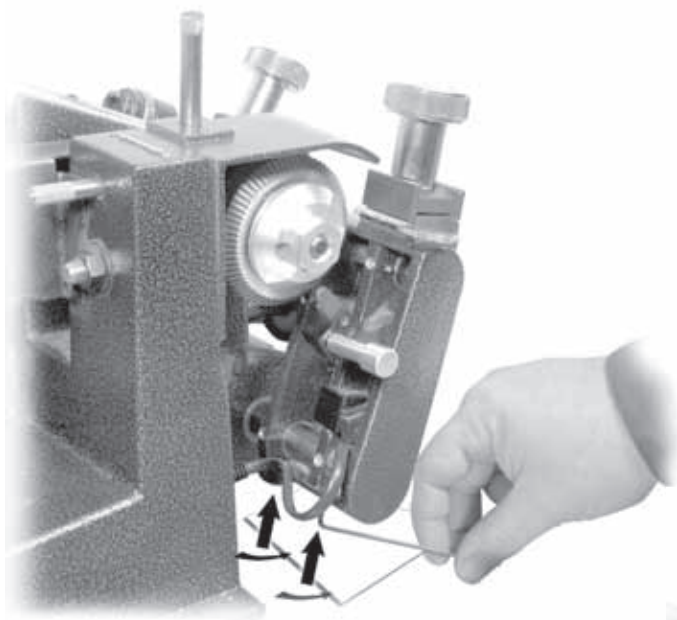
If the space indicator needle is offset to the right, the machine is cutting too close to the tip.

If the space indicator is offset to left, the machine is cutting too far from tip.

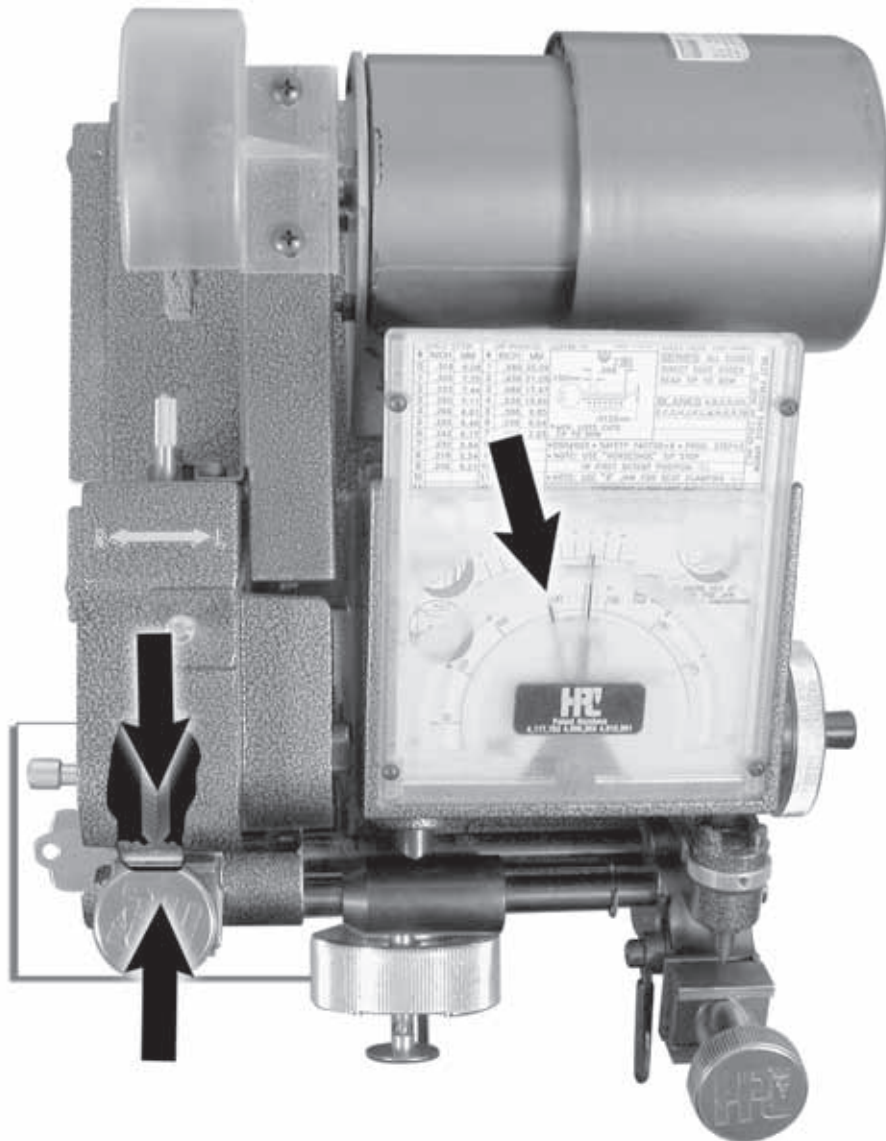
(Note: Re-calibration of the tip **does necessitate** re-calibration of shoulder space. See next section.)



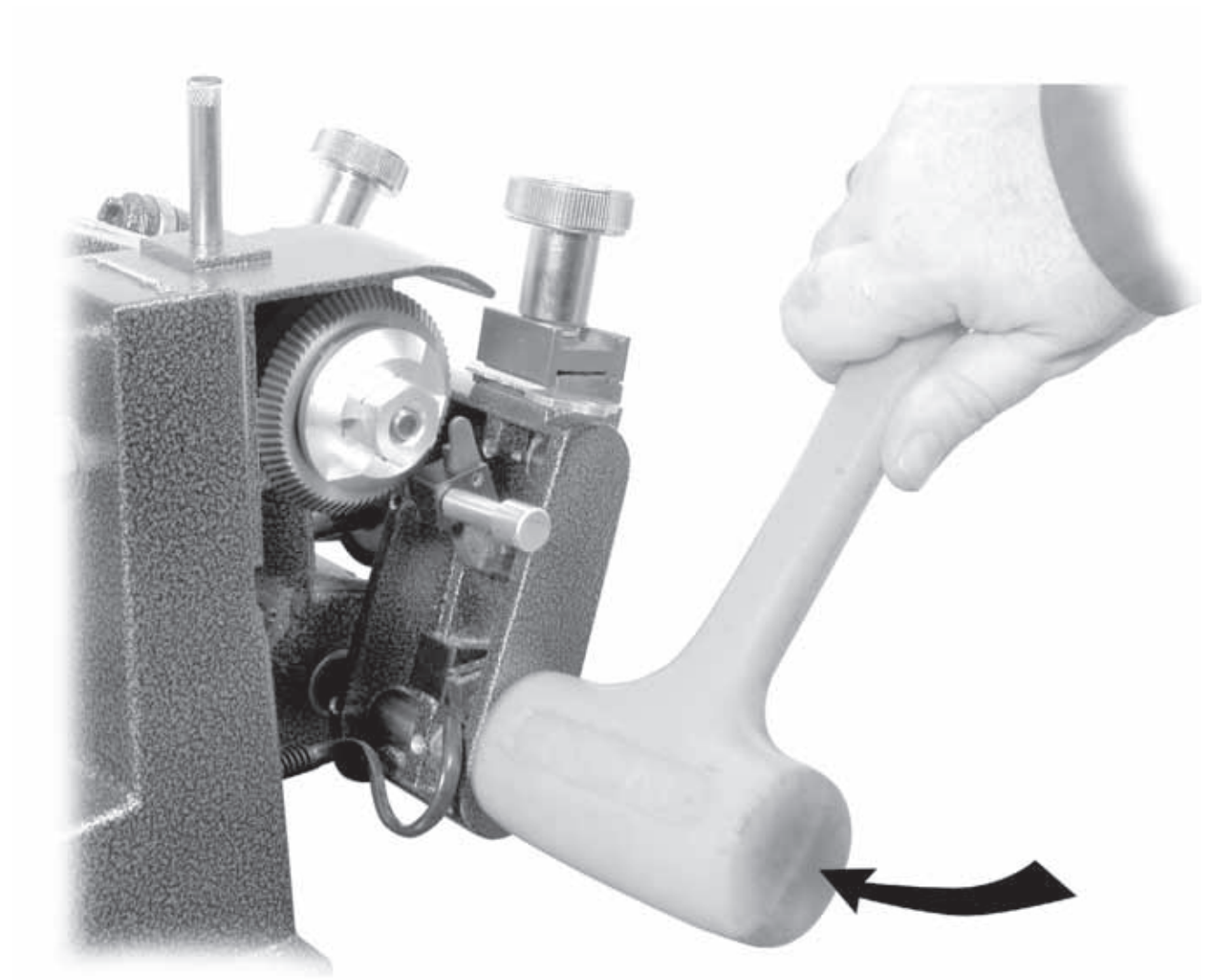
Rotate the Space Crank until the indicator needle is centered over the corresponding space mark as shown. Rotate the Depth Crank until the cutter is fairly deep within the cut.



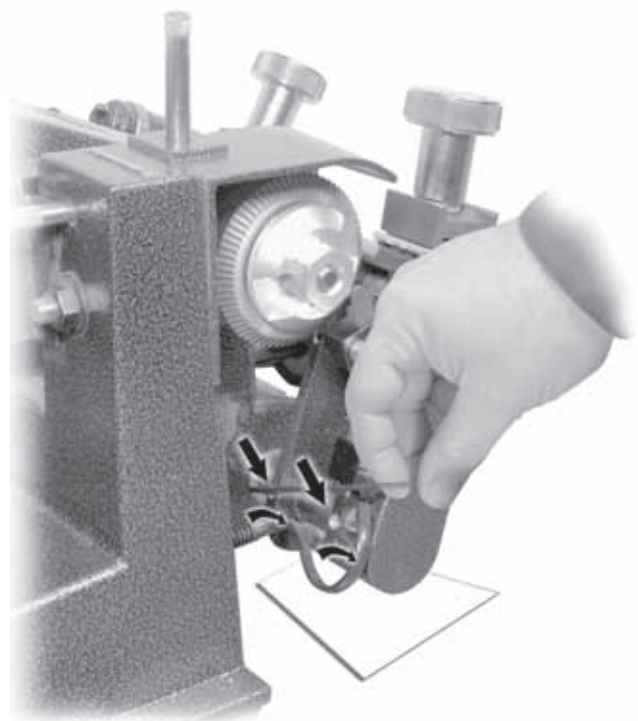
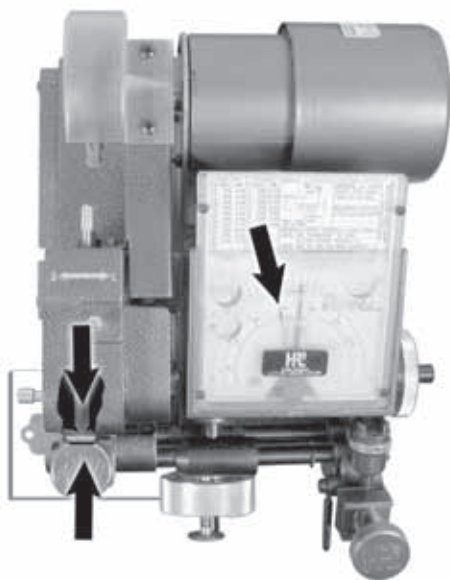
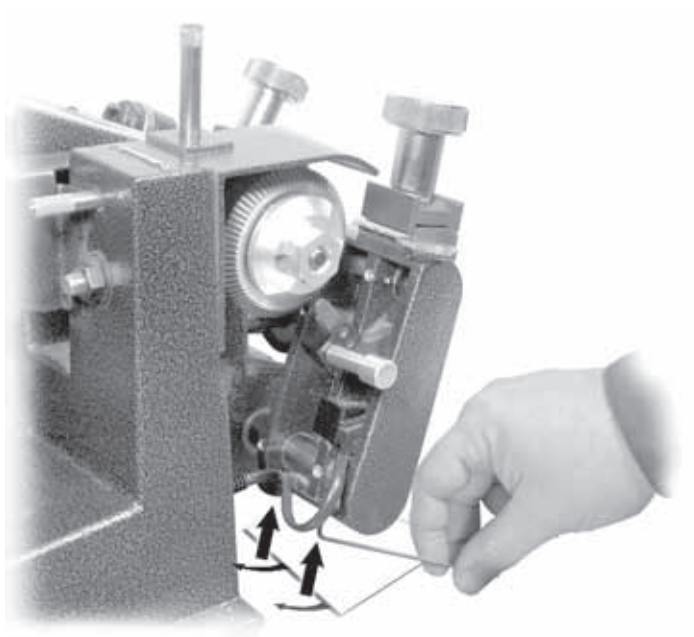
Loosen the four set screws that hold the Pivot Arm onto the Pivot Arm Shaft. DO NOT REMOVE THE PIVOT ARM.



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.)



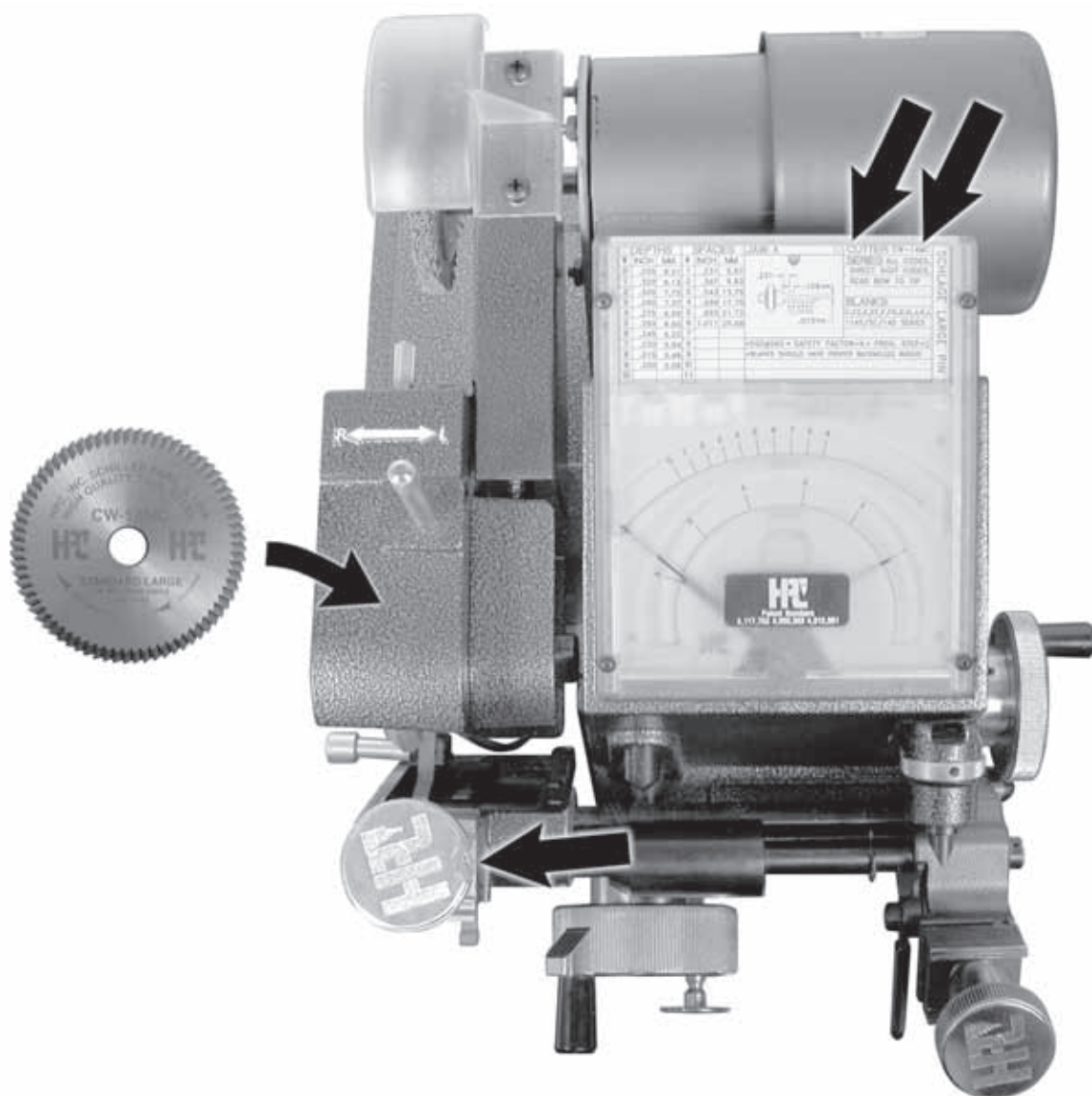
With the cutter aligned opposite the cut and the space indicator needle centered over the corresponding space mark, tilt the machine up, if necessary, (without disturbing the setting) and re-tighten the set screws.

7.2 Shoulder Gauge Calibration (for Code Cutting):

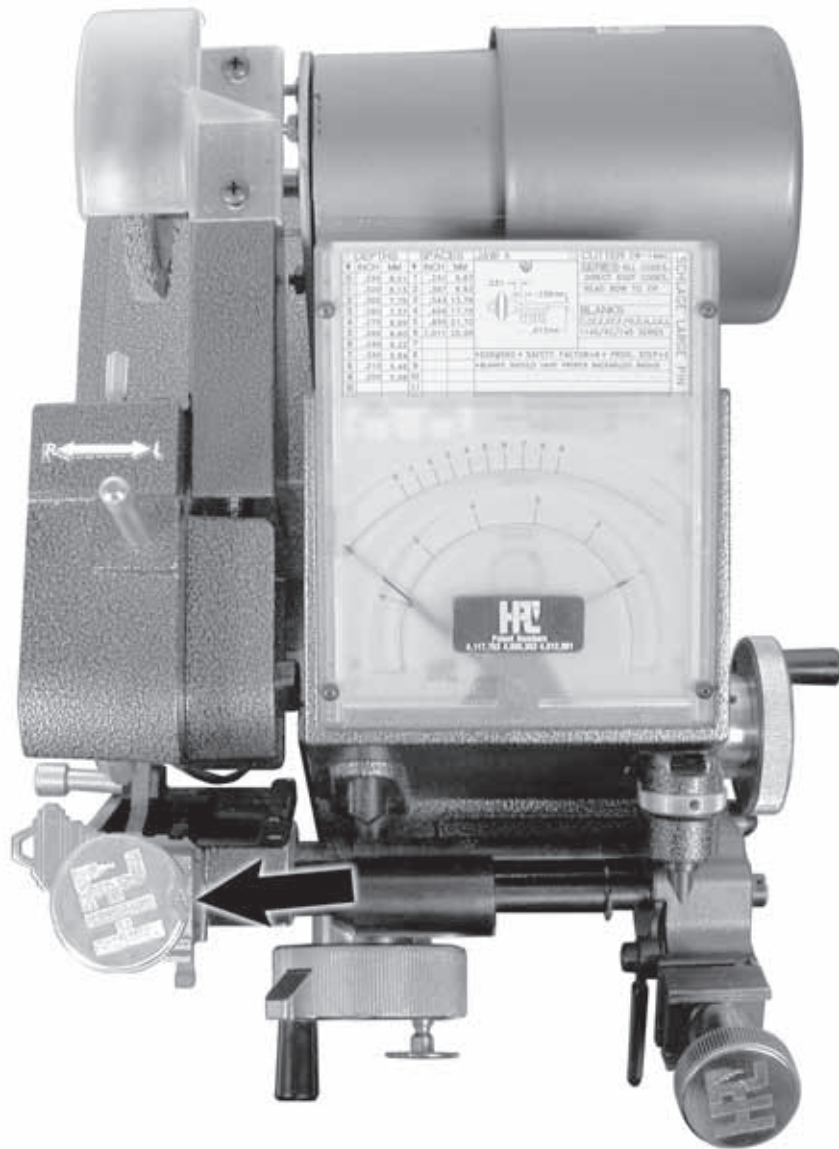


Select an original large cylinder type shoulder-gauged cut key, such as Schlage.

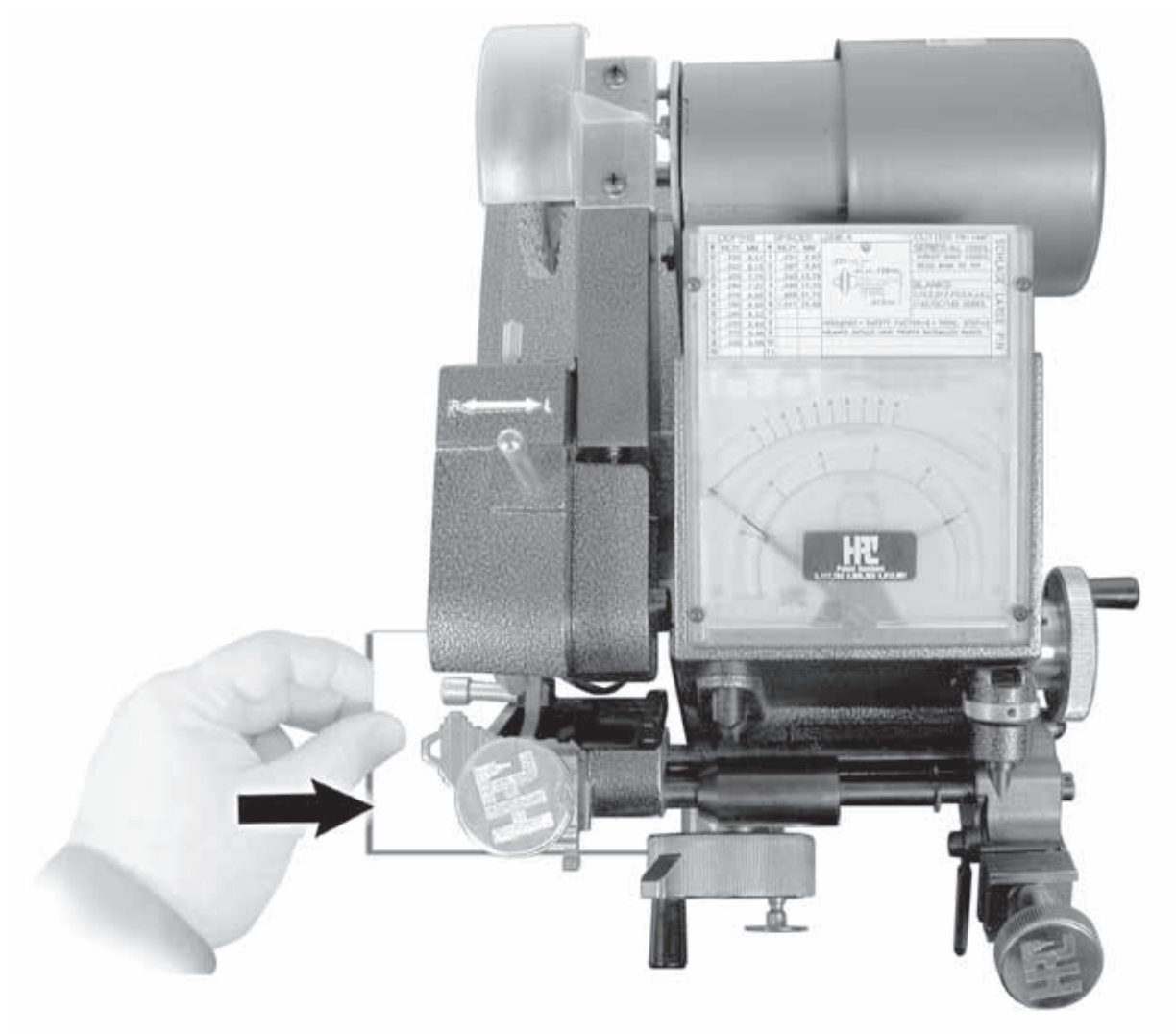
Always check spacing on a tip stop key first, before adjusting for shoulder-gauged keys.



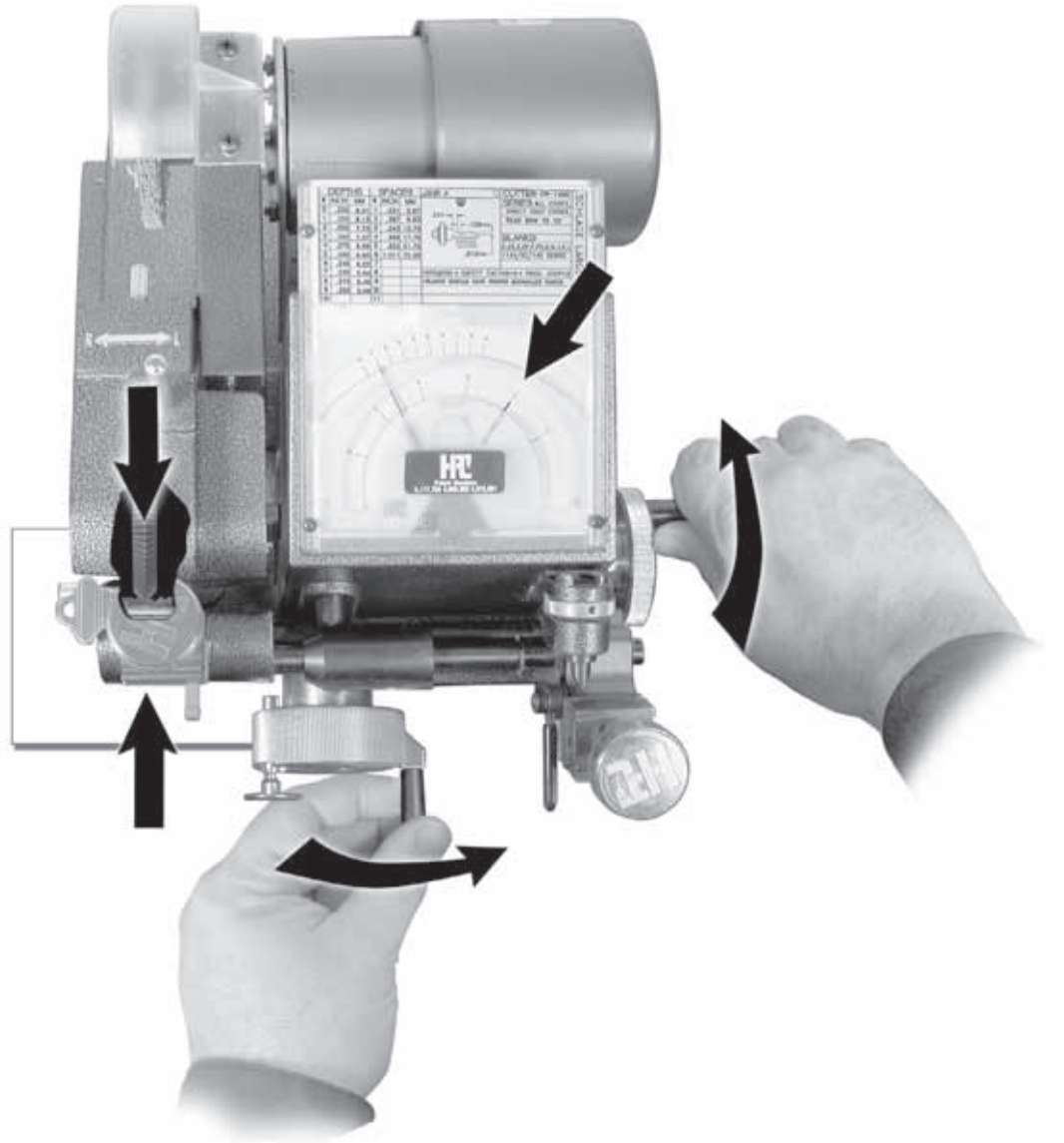
Insert the correct code card. Put on the correct cutter.



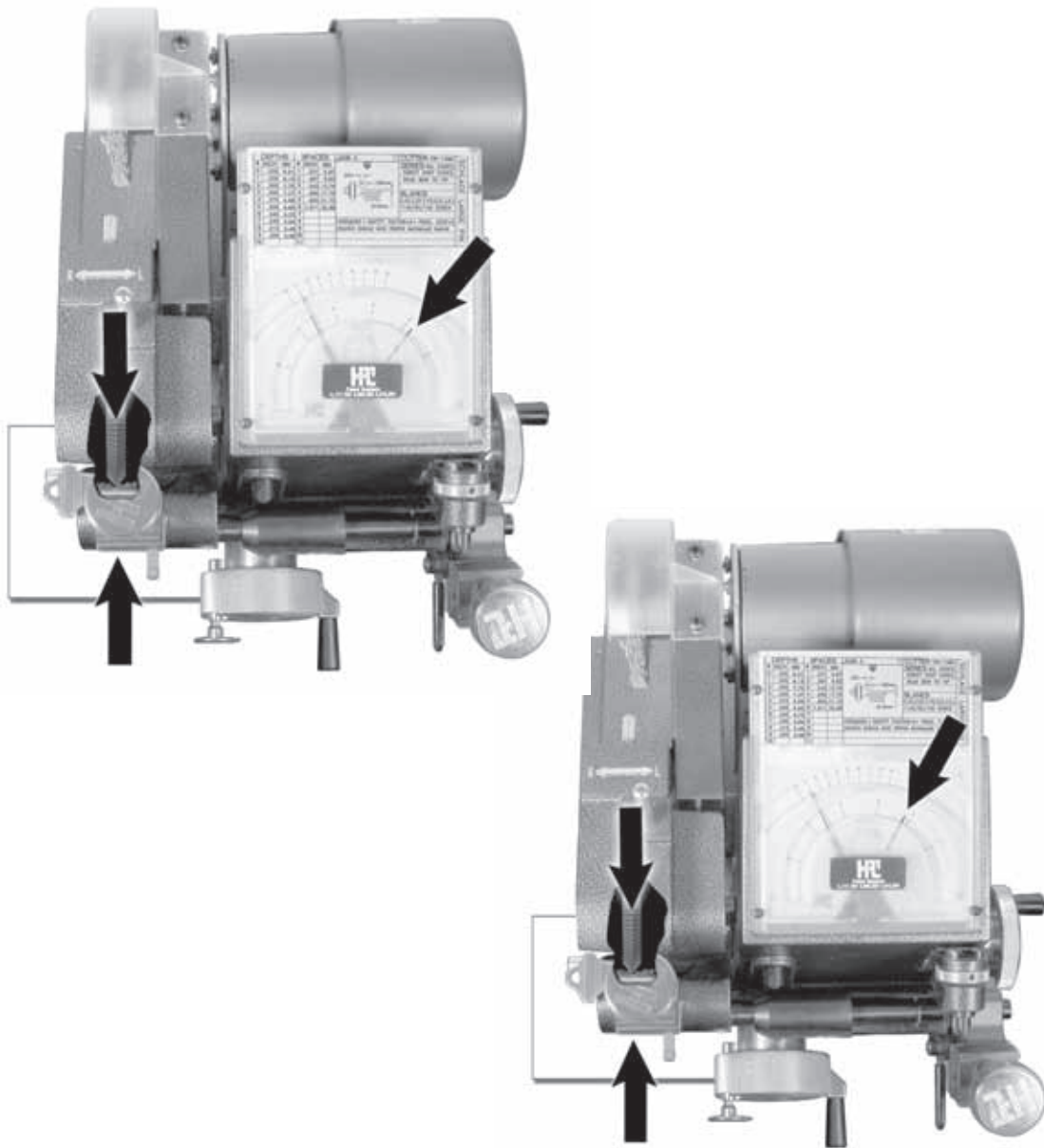
Gauge and clamp the key.



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



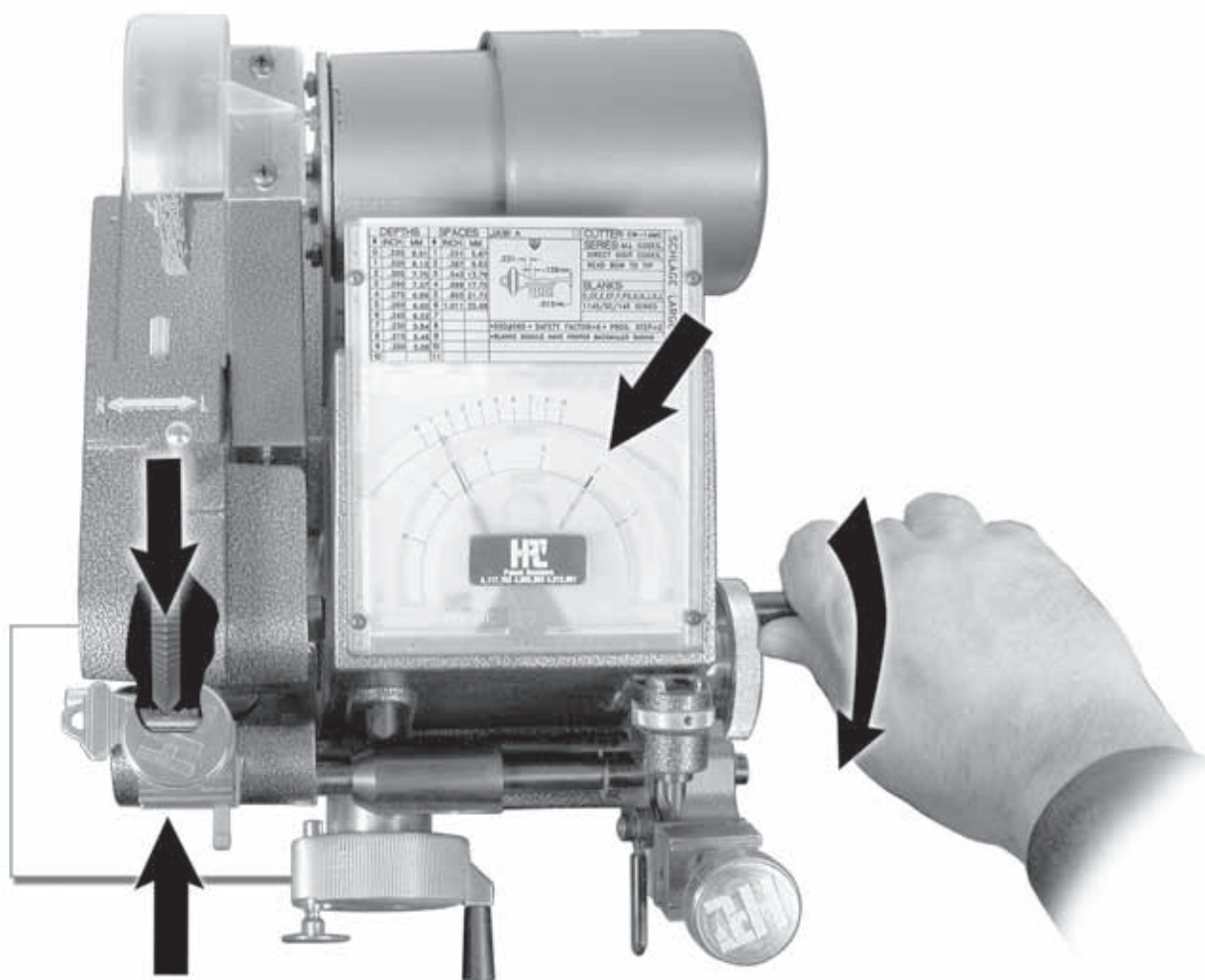
Rotate the Space Crank to position the key with the most easily seen cut carefully centered beneath the cutter as shown. Rotate the Depth Crank until the cutter is fairly deep within the cut. If the space indicator needle is centered over the corresponding space mark, the space adjustment is correct.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



If the space indicator needle is offset to the right, the machine is cutting too far from the shoulder.

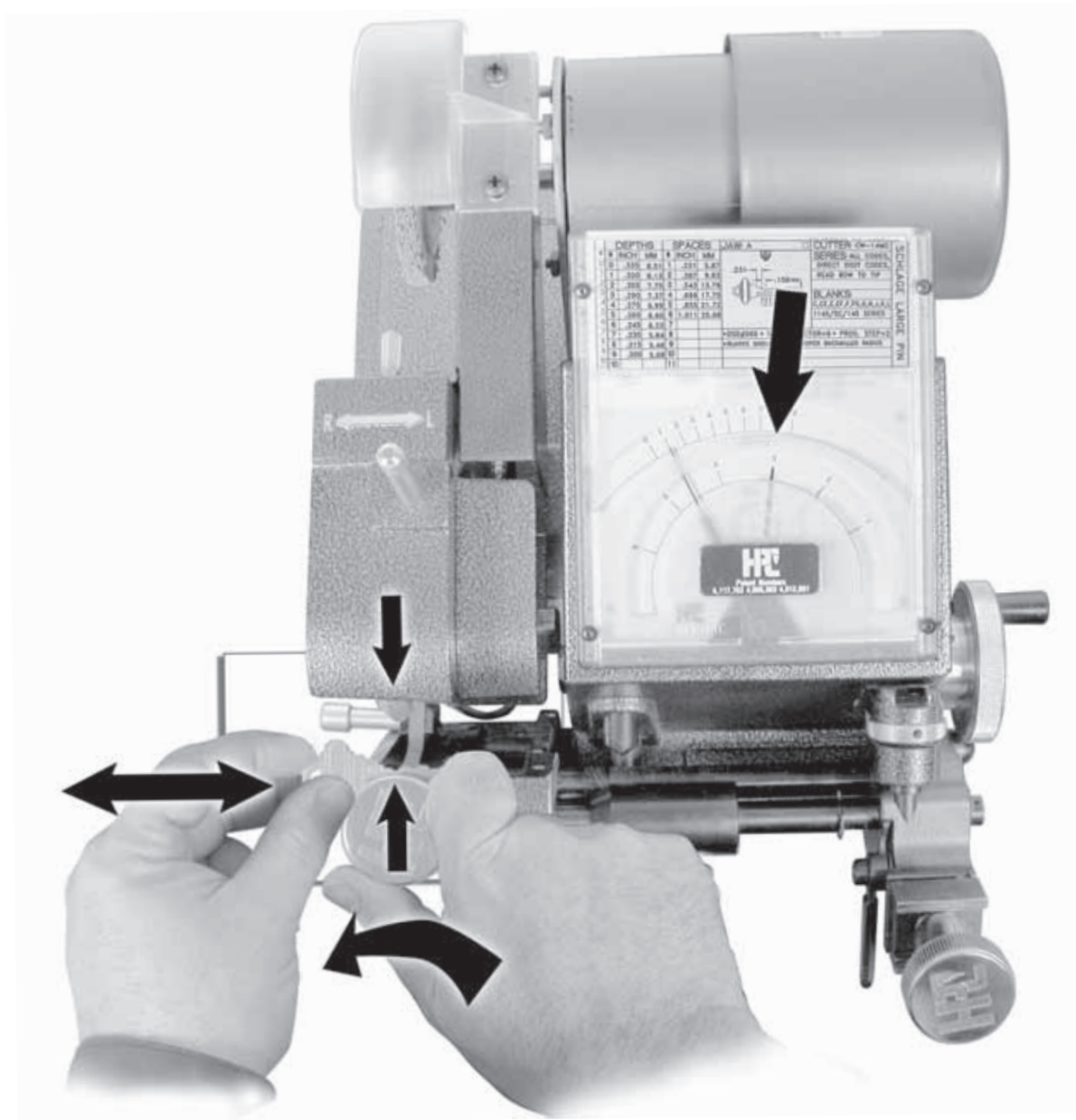
If the space indicator needle is offset to left, the machine is cutting too close to the shoulder.

(Note: Recalibration of shoulder spacing **does not necessitate** recalibration of tip space.)

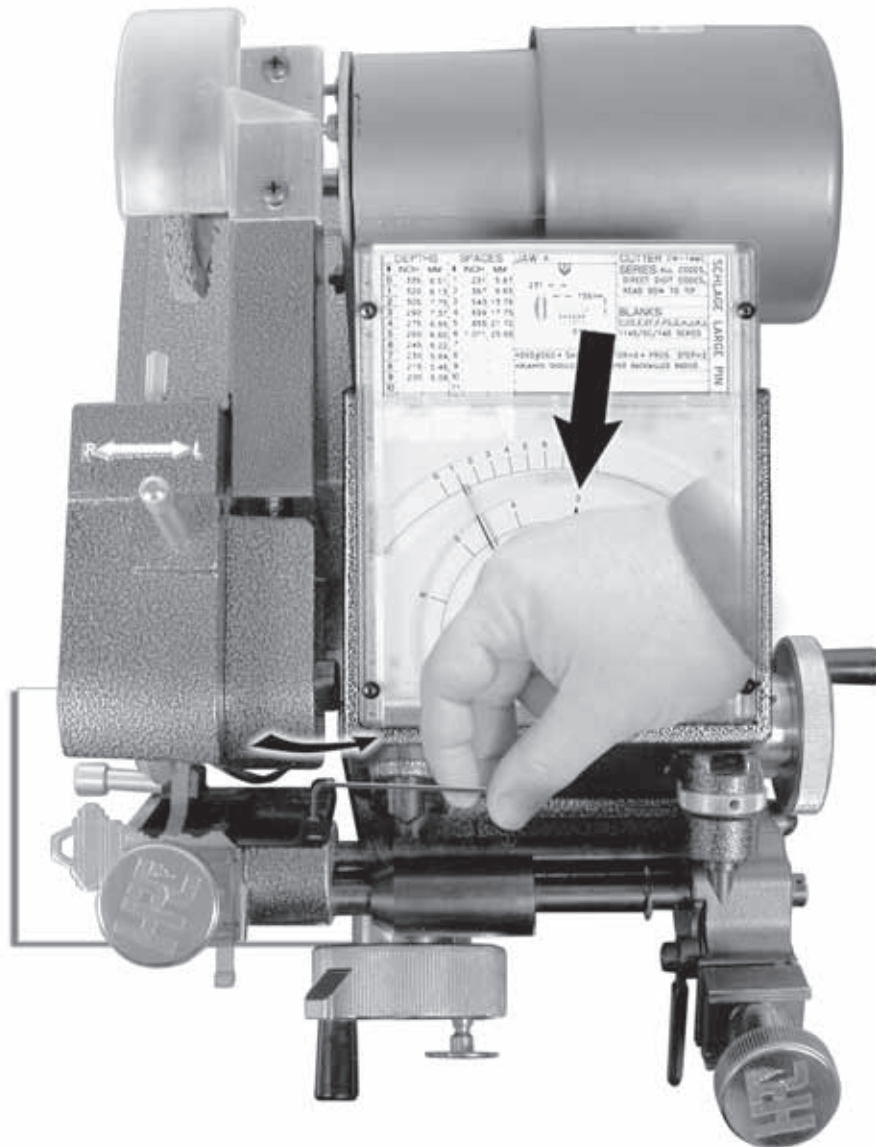


NOTE: Unplug the machine for these and the following operations.

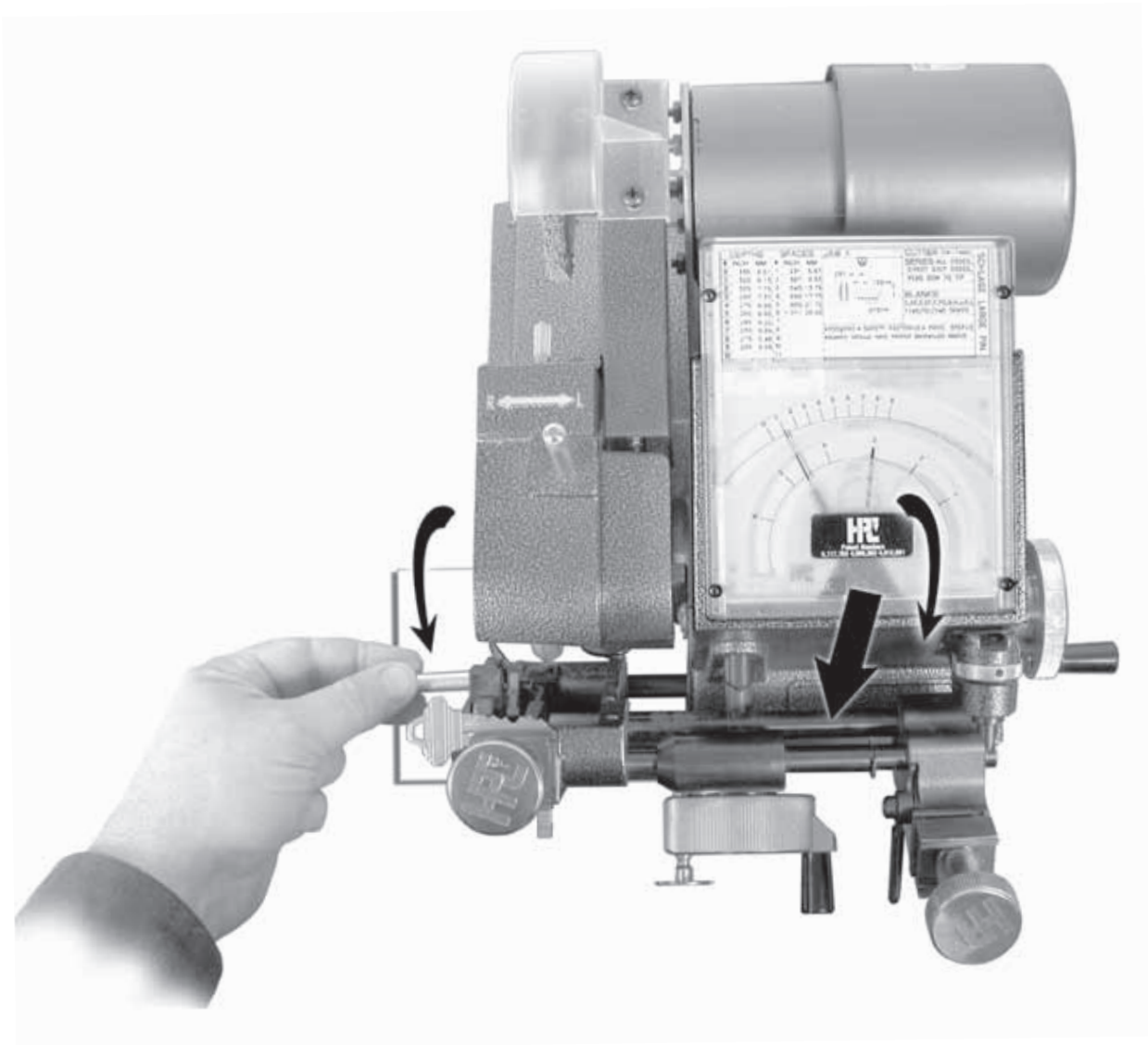
Rotate the Space Crank until the space indicator needle is centered over the corresponding space mark as shown.



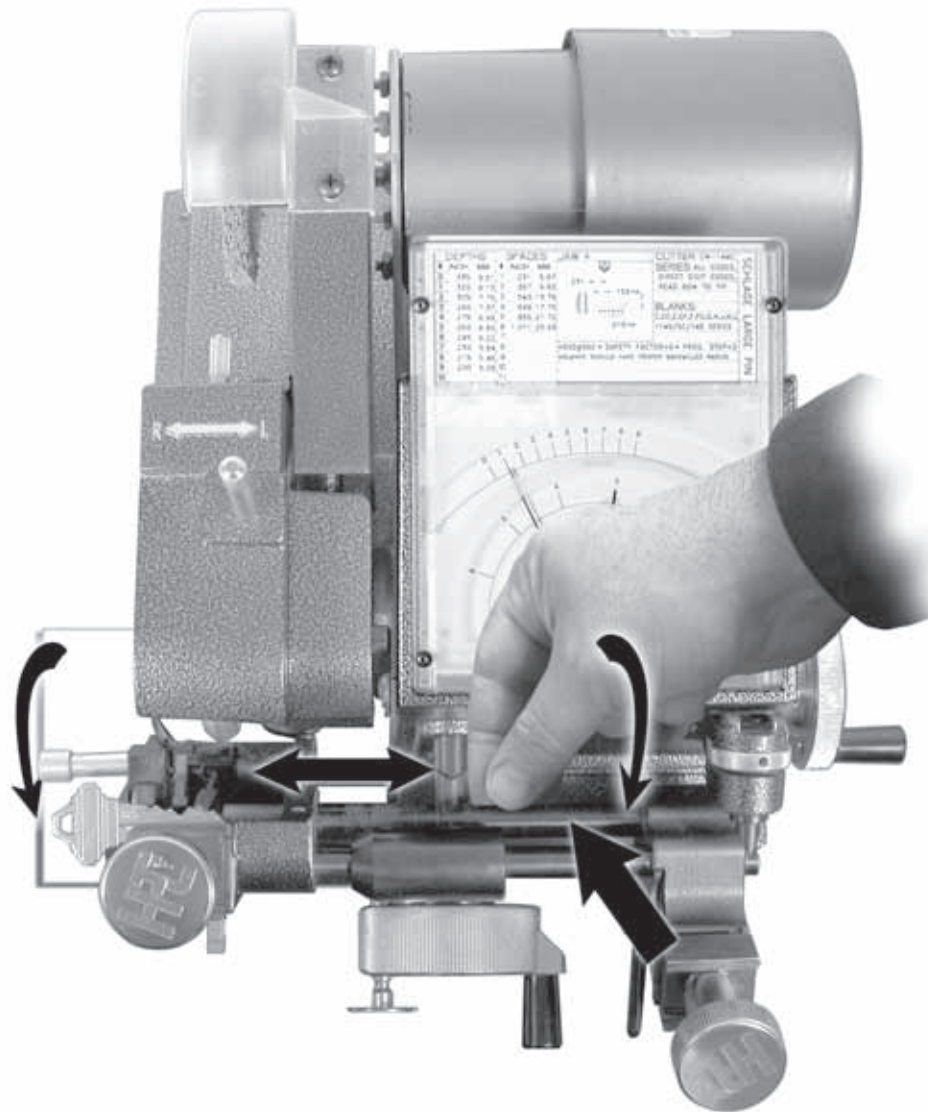
Loosen the key on the vise. Slide the key until the pin seat of the cut is directly opposite the flat of the cutter as shown. Tighten the key on the vise.



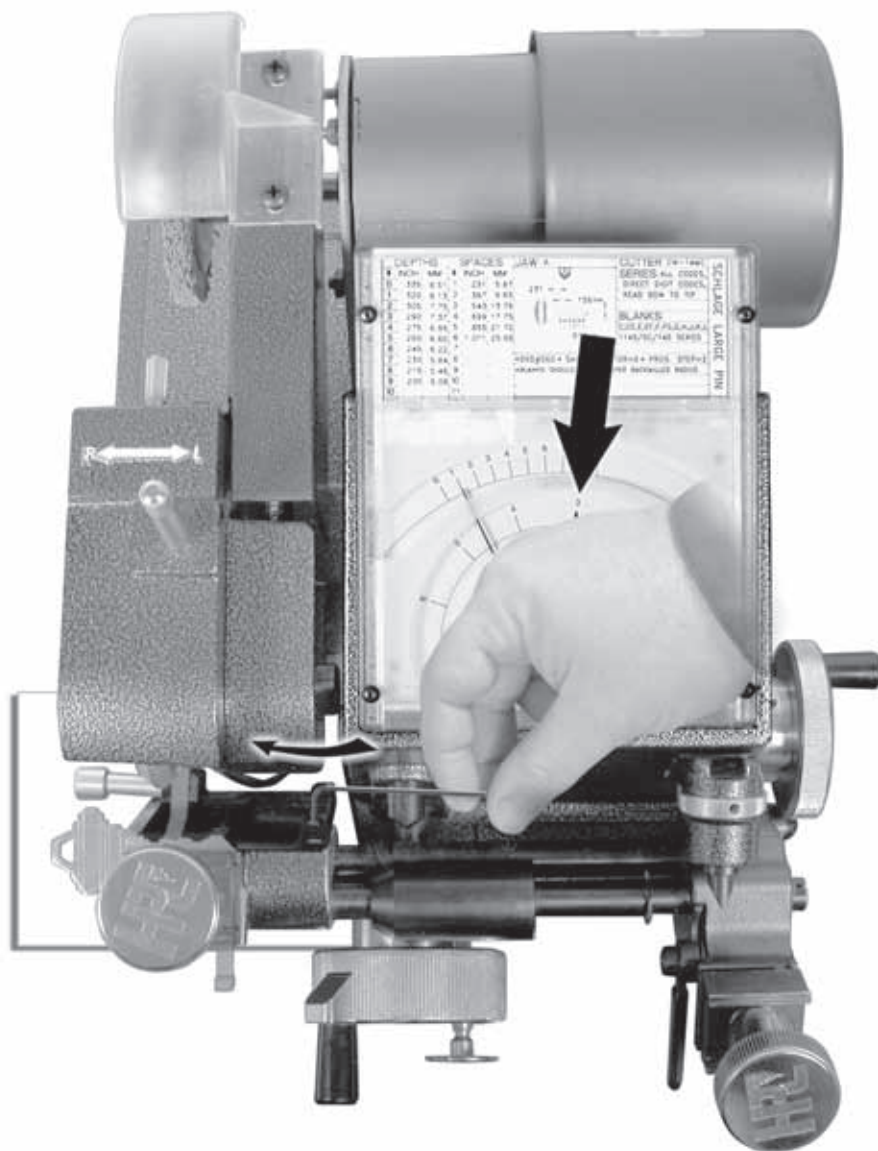
Loosen the set screw that holds the shoulder gauge turn bar onto the pivot arm.



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.

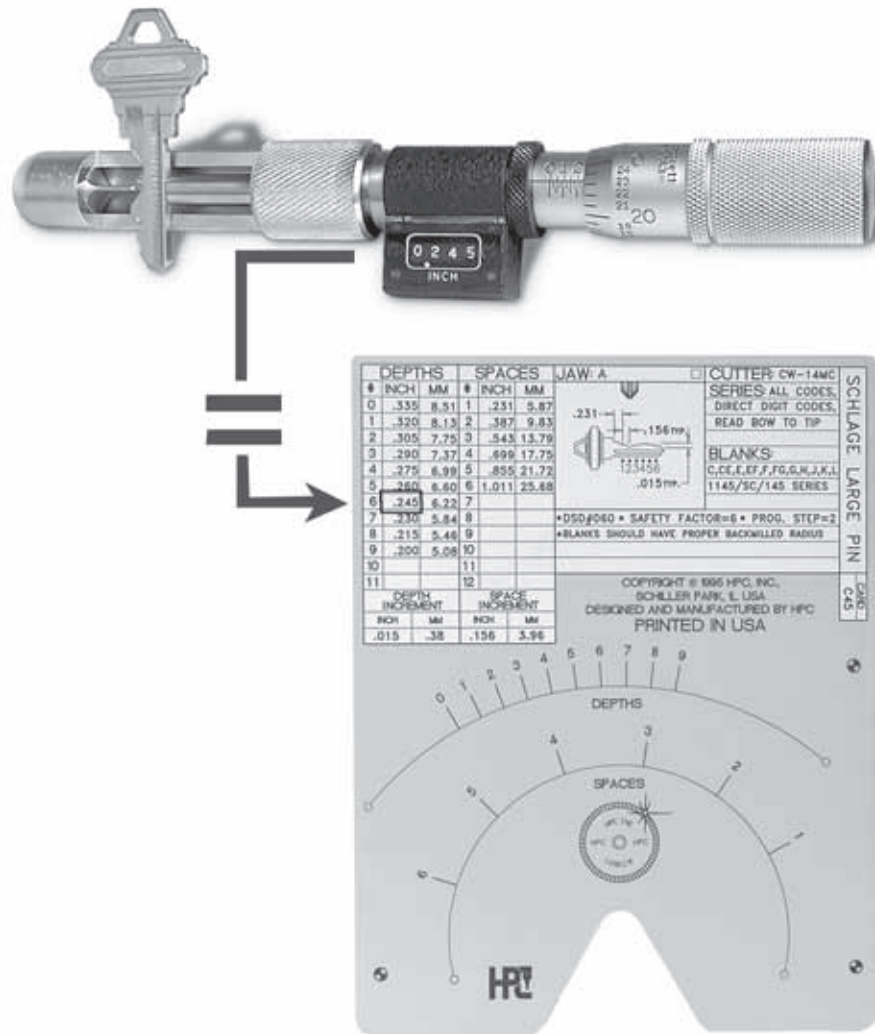


Now that the turn bar is loose, rotate the turn bar clockwise or counter-clockwise to move the shoulder gauge toward the shoulder of the key. The left side of the gauge should end up just barely touching the shoulder of the key as shown (as in normal gauging). Do not use pliers or any tool that will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

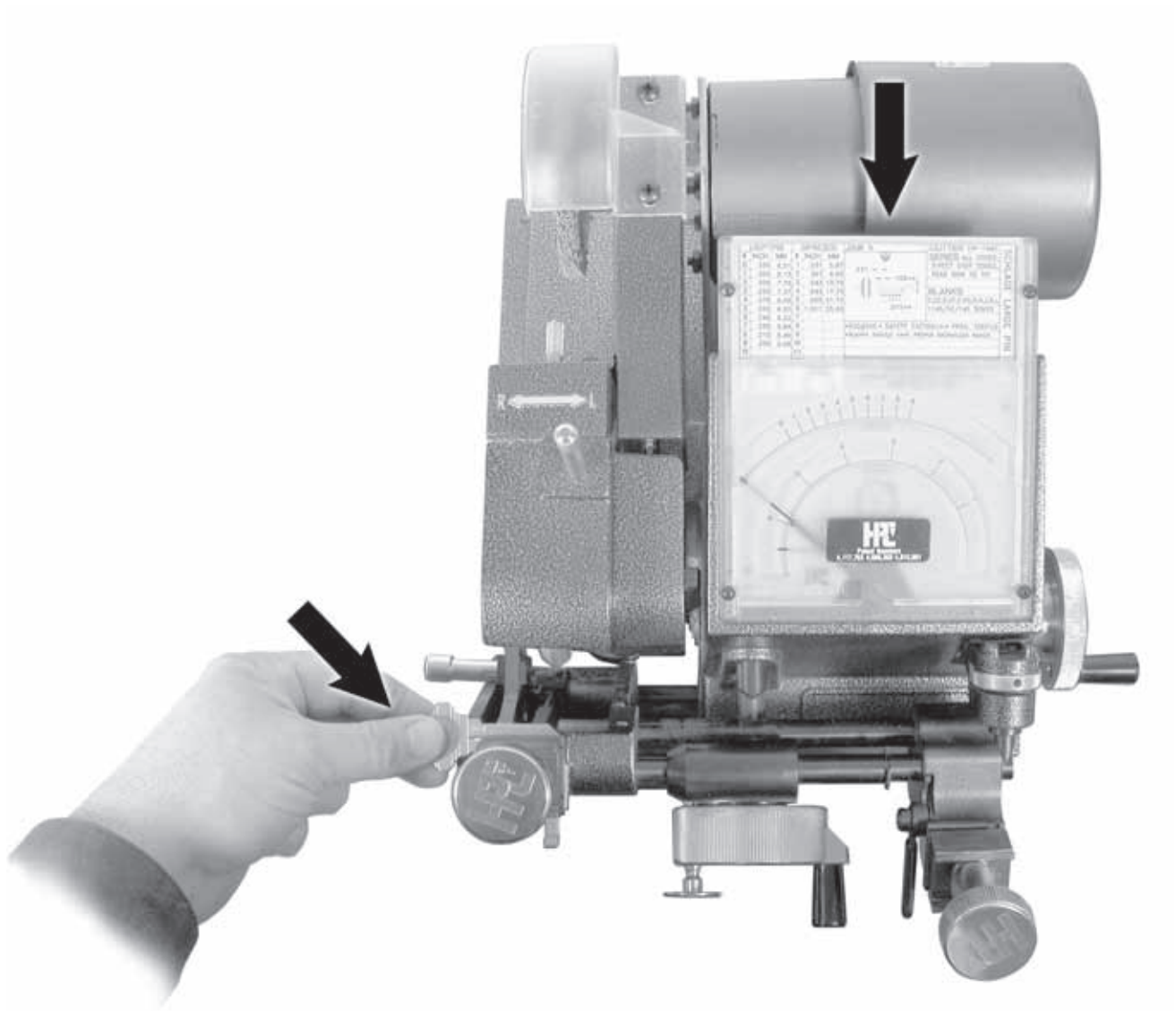


Tighten the set screw that holds the turn bar onto the pivot arm.

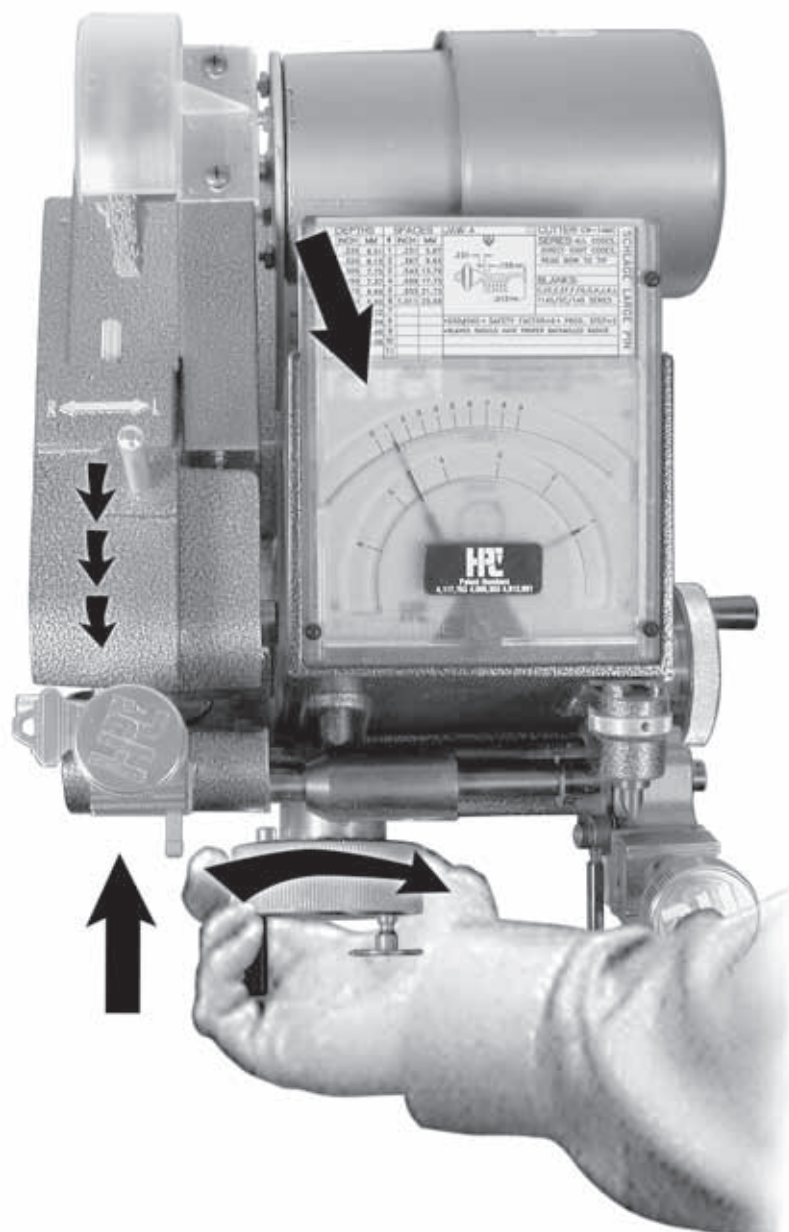
7.3 Depth Calibration (for Code Cutting):



Cut a key by code, measure the depths, and compare them to the code card. If the depth of the cut measures the same as the depth dimension on the code card, your machine is in proper depth calibration.



If your machine is out of depth calibration, insert a key blank and the corresponding code card (such as Schlage) into the machine.



Cut a 1-cut or 2-cut in the first position.



DEPTHS		SPACES		JAW: A	CUTTER: CW-14MC
#	INCH	MM	#	INCH	MM
0	.000	0.00	1	.231	5.87
1	.320	8.13	2	.387	9.83
2	.365	9.28	3	.543	13.79
3	.290	7.37	4	.699	17.75
4	.275	6.99	5	.855	21.72
5	.260	6.60	6	1.011	25.68
6	.245	6.22	7		
7	.230	5.84	8		
8	.215	5.46	9		
9	.200	5.08	10		
10			11		
11			12		

DEPTH INCREMENT		SPACE INCREMENT	
INCH	MM	INCH	MM
.015	.38	.156	3.96

.231
 .156 mm
 .015 mm
 123456

BLANKS:
 C, CE, E, EF, F, FG, G, H,
 J, K, L
 1145/SC/145 SERIES

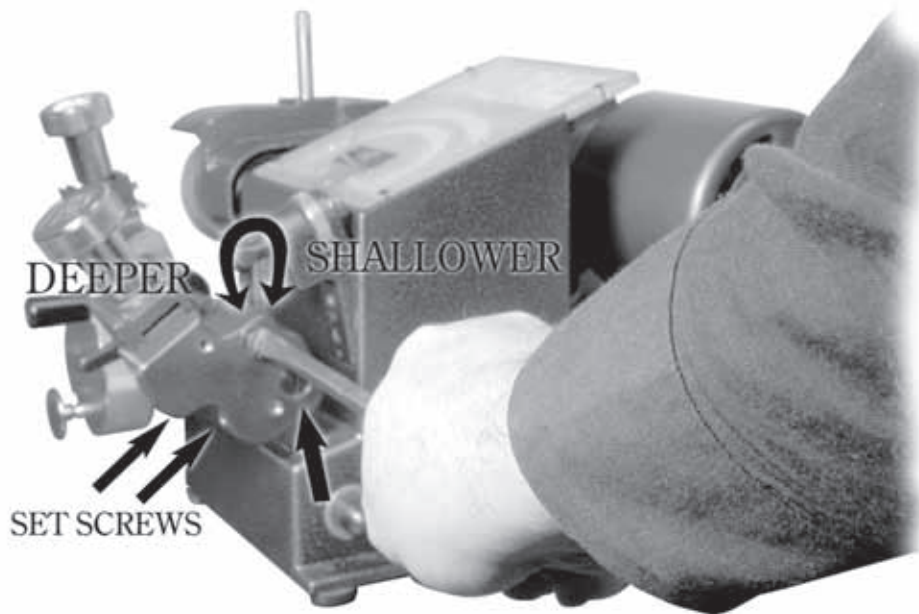
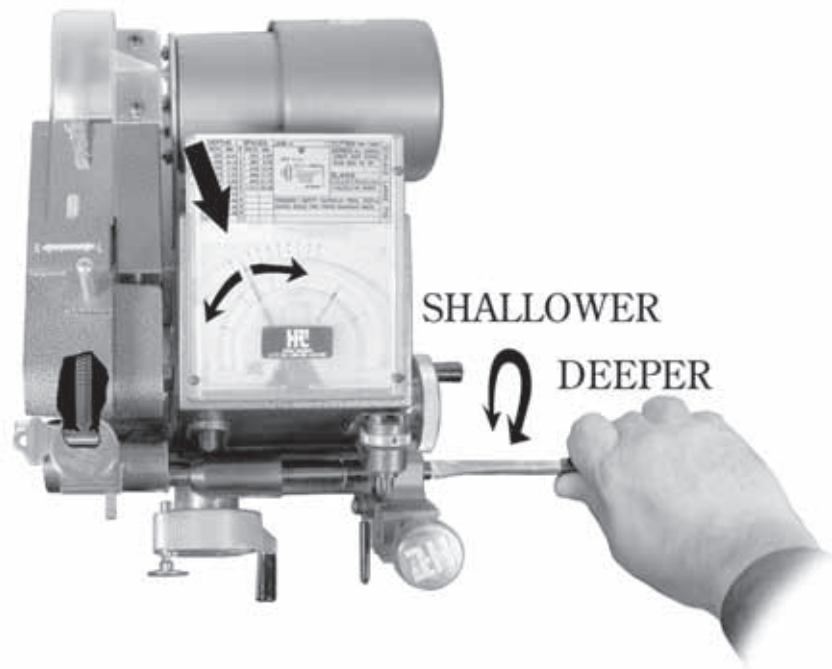
DSD#060 • SAFETY FACTOR=6 • PROG, STEP=2
 BLANKS SHOULD HAVE PROPER BACKMILLED RADIUS

COPYRIGHT 2005 HPC, INC.,
 SCHILLER PARK, IL USA
 DESIGNED AND MANUFACTURED BY HPC
 PRINTED IN USA

SLIDAGE LARGE PIN
 CARD
 C-45

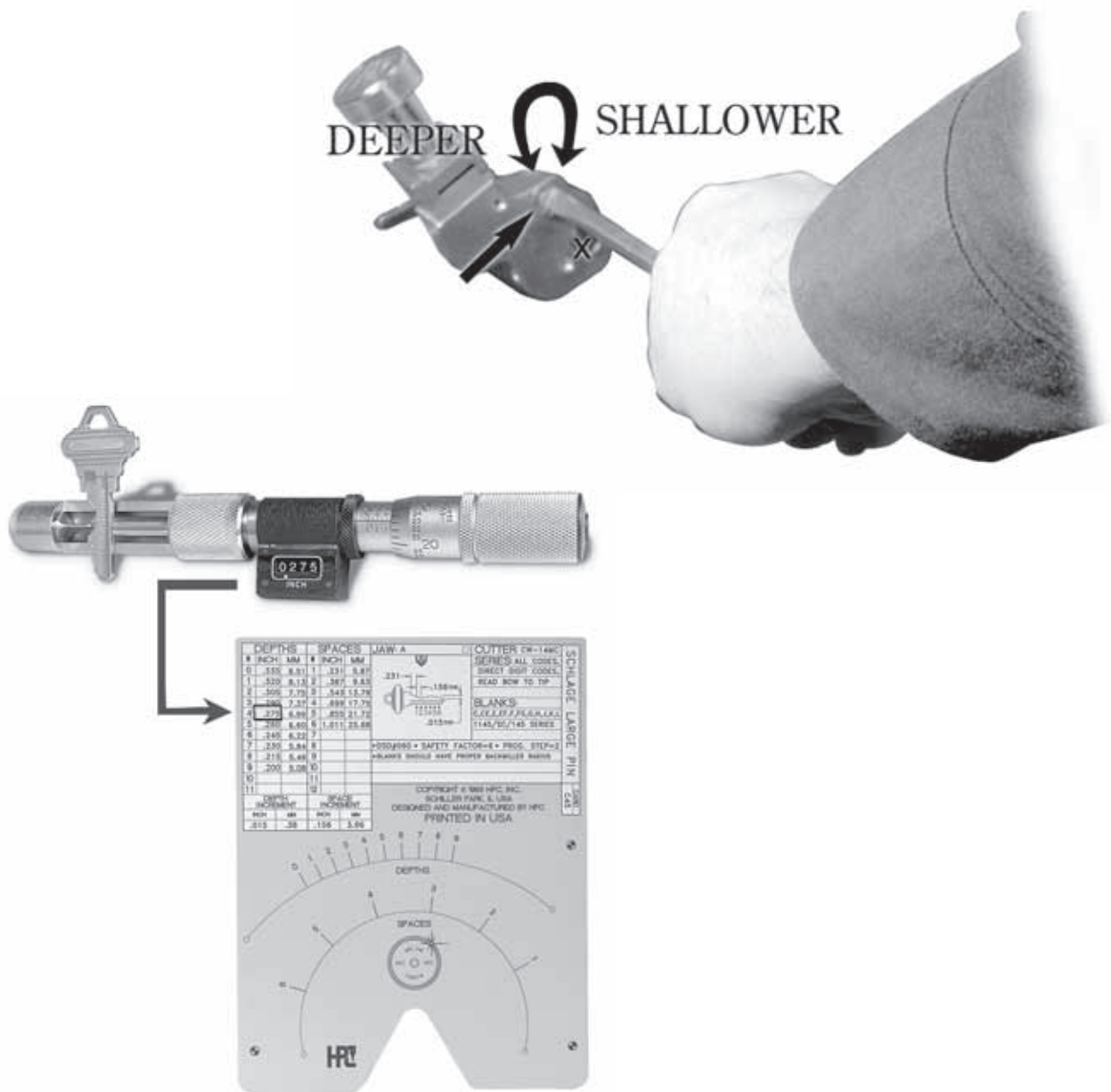
Compare the measurement to the dimensions listed on the code card.

Note: If the shaft refuses to turn slightly. Loosen the set screws as indicated by the arrows.



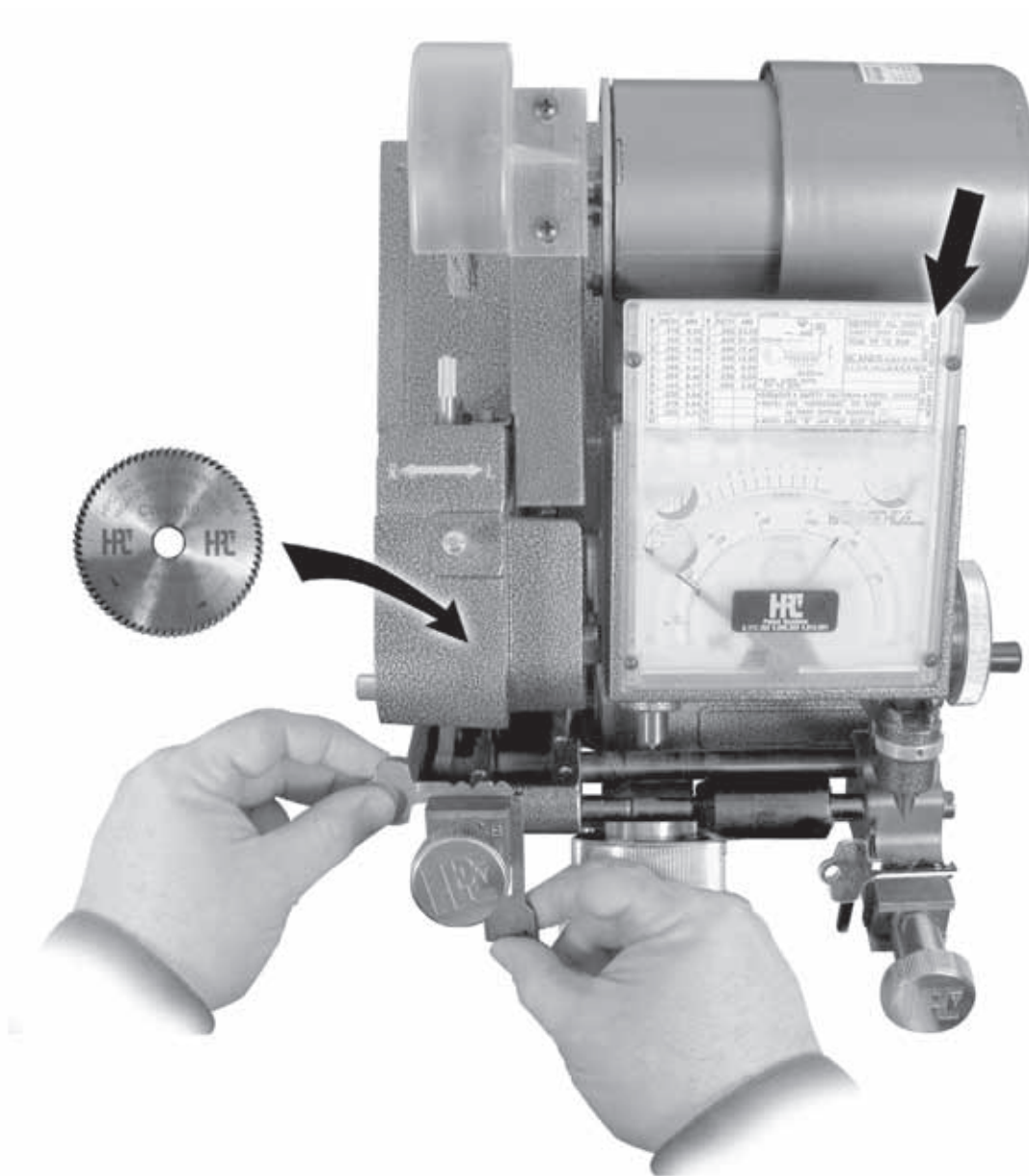
Note: The maximum range of the eccentric shaft is 90° when turning toward you (a maximum of $-.015"/0.38\text{mm}$ in depth change) and 90° when turning away (a maximum of $+.015"/0.38\text{mm}$ in depth change). Therefore only a small turn is used to change depths.

If the cut measures too deep, using a large flat-blade screwdriver, turn the shaft away from you (toward the machine). If the cut measures too shallow, using a large flat-blade screwdriver, turn the shaft toward you (away from the machine).



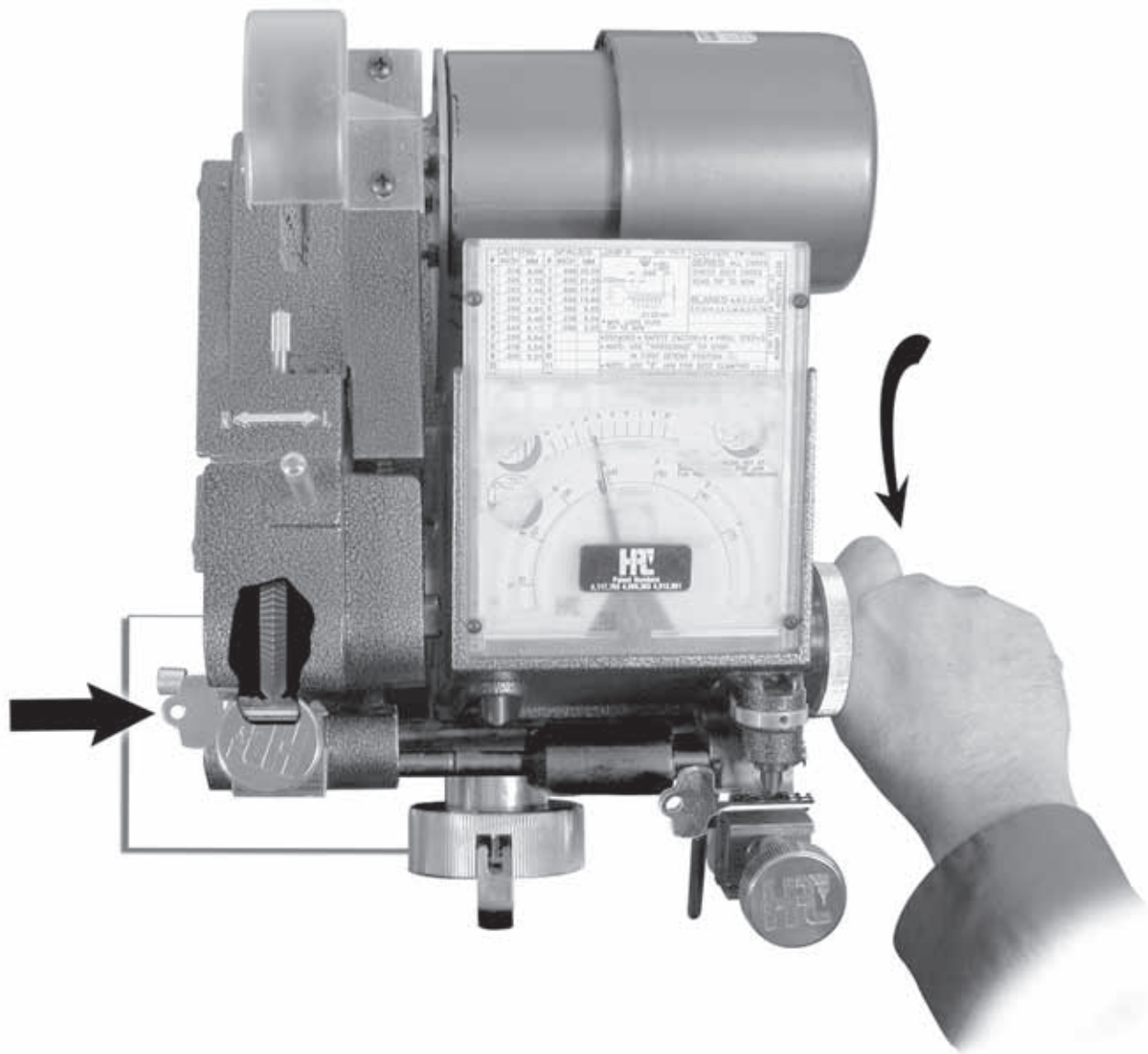
Insert the key blank and cut a deeper cut (you can use the same space). Measure this new cut and compare to the dimensions on the code card. Make further adjustments to the shaft if needed. Continue this procedure until the machine is cutting exactly to the dimensions on the card.

7.4 Tip Gauge Calibration (for Duplicating):

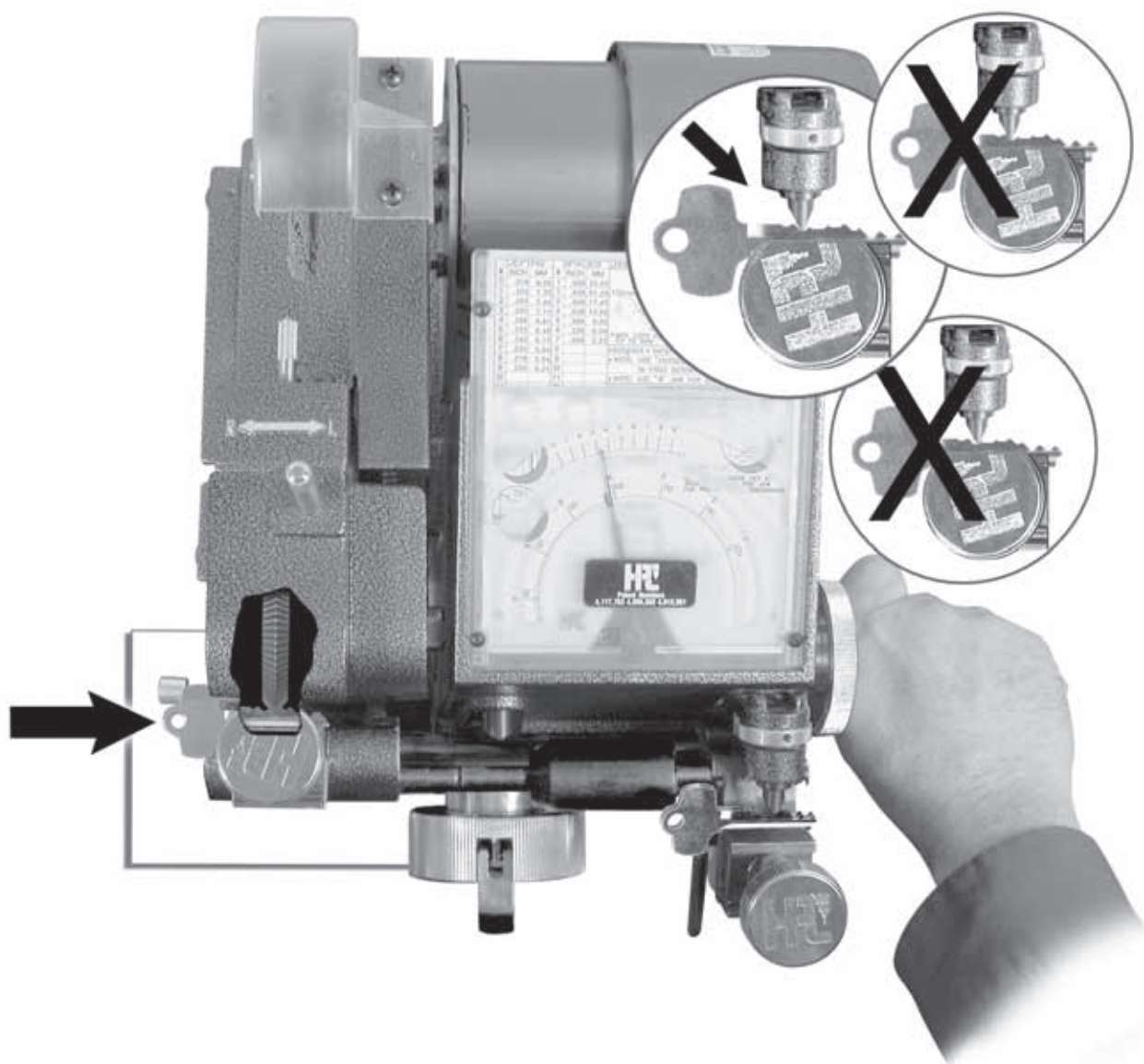


Install two factory-cut Best keys.

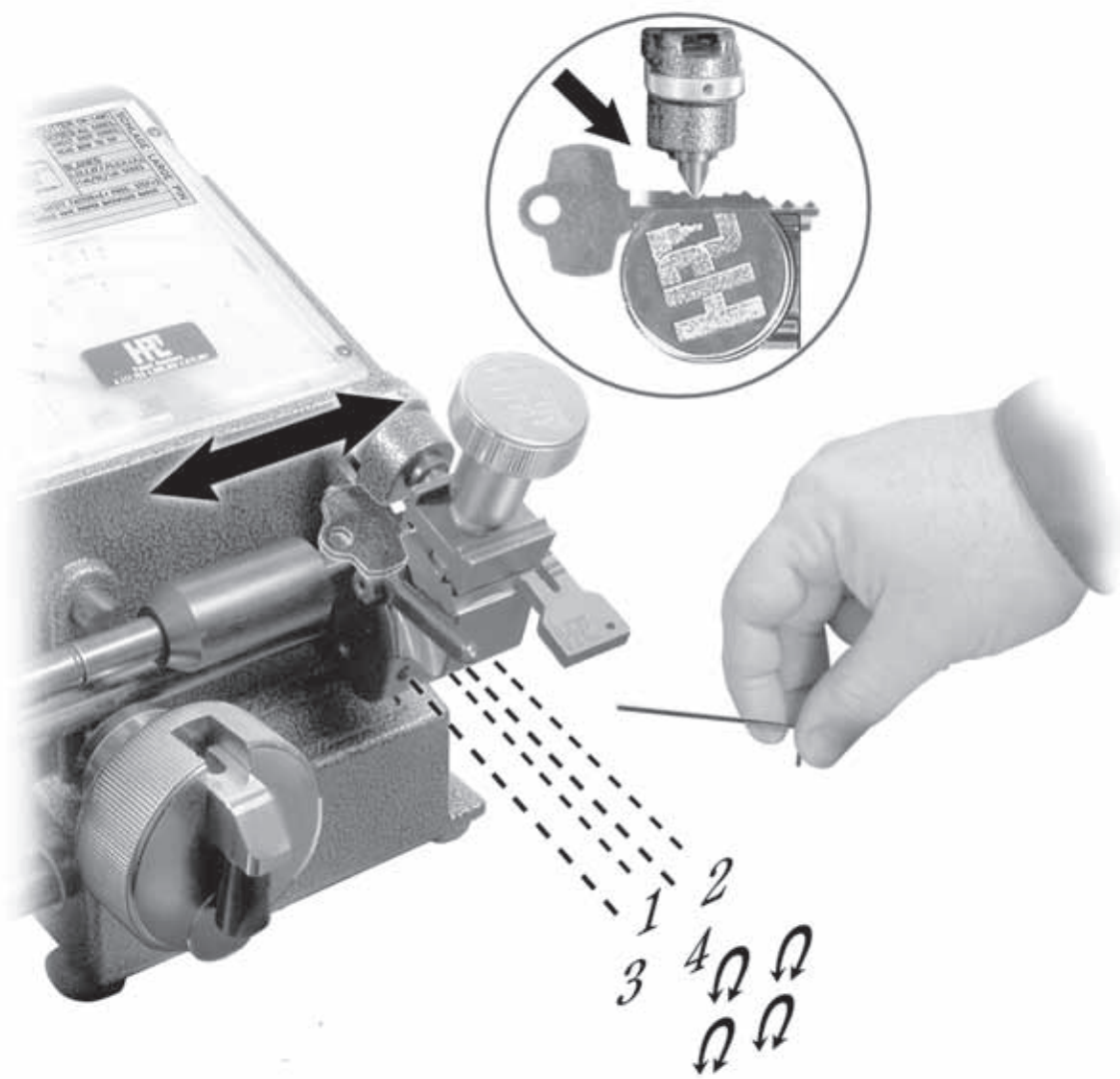
IMPORTANT: Before adjusting spacing for duplication, you must set up your machine for duplication, including the CW-6010 cutter. Refer to Section 5.0.



Move the carriage so that the cutter is at the root of a deep cut as shown.

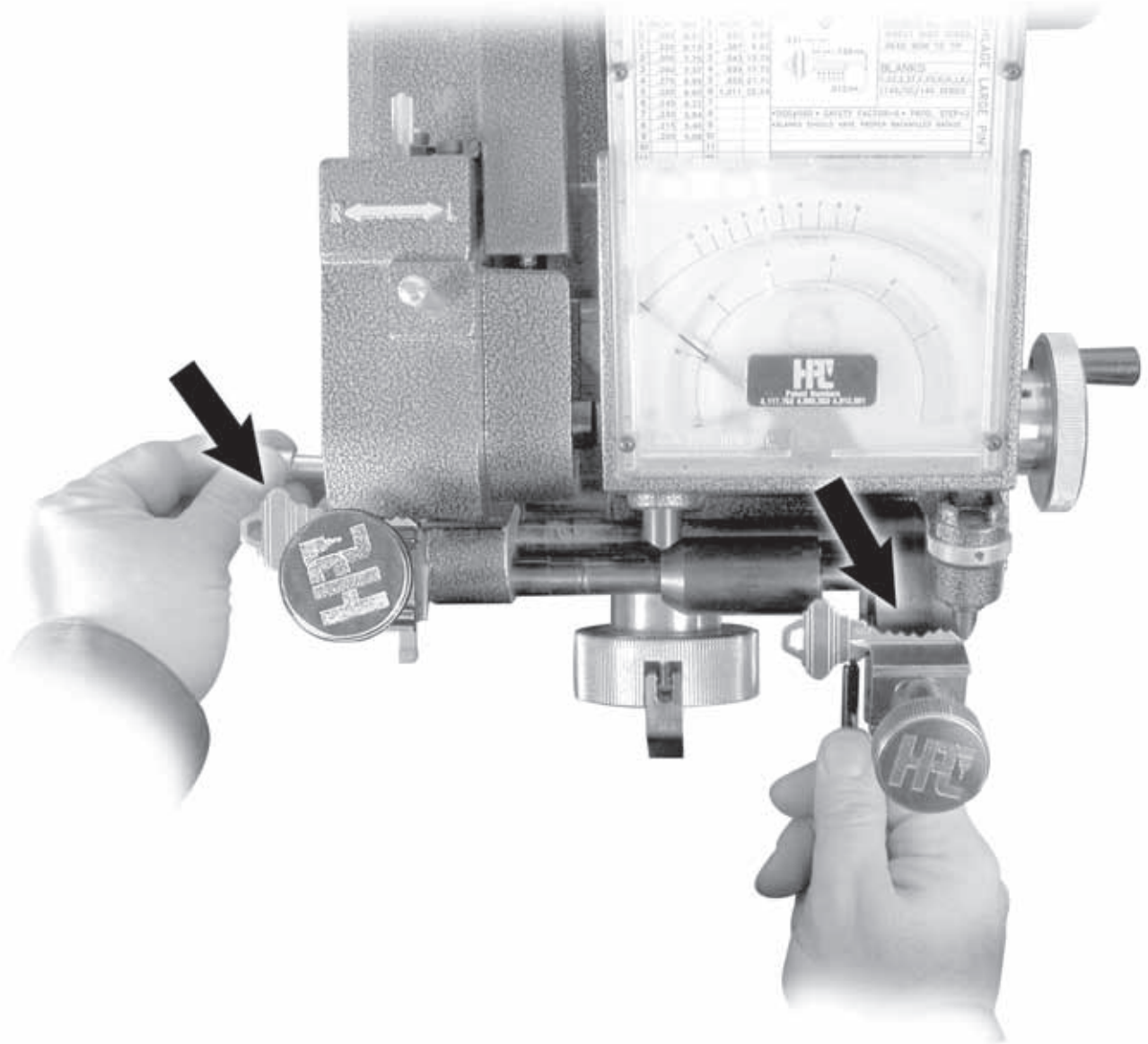


Note the position of the tracer in relation to the root of the cut. If the tracer is to the right of the center of the cut, the carriage needs to be moved to the right. If the tracer is to the left of the center of the cut, the carriage needs to be moved to the left.

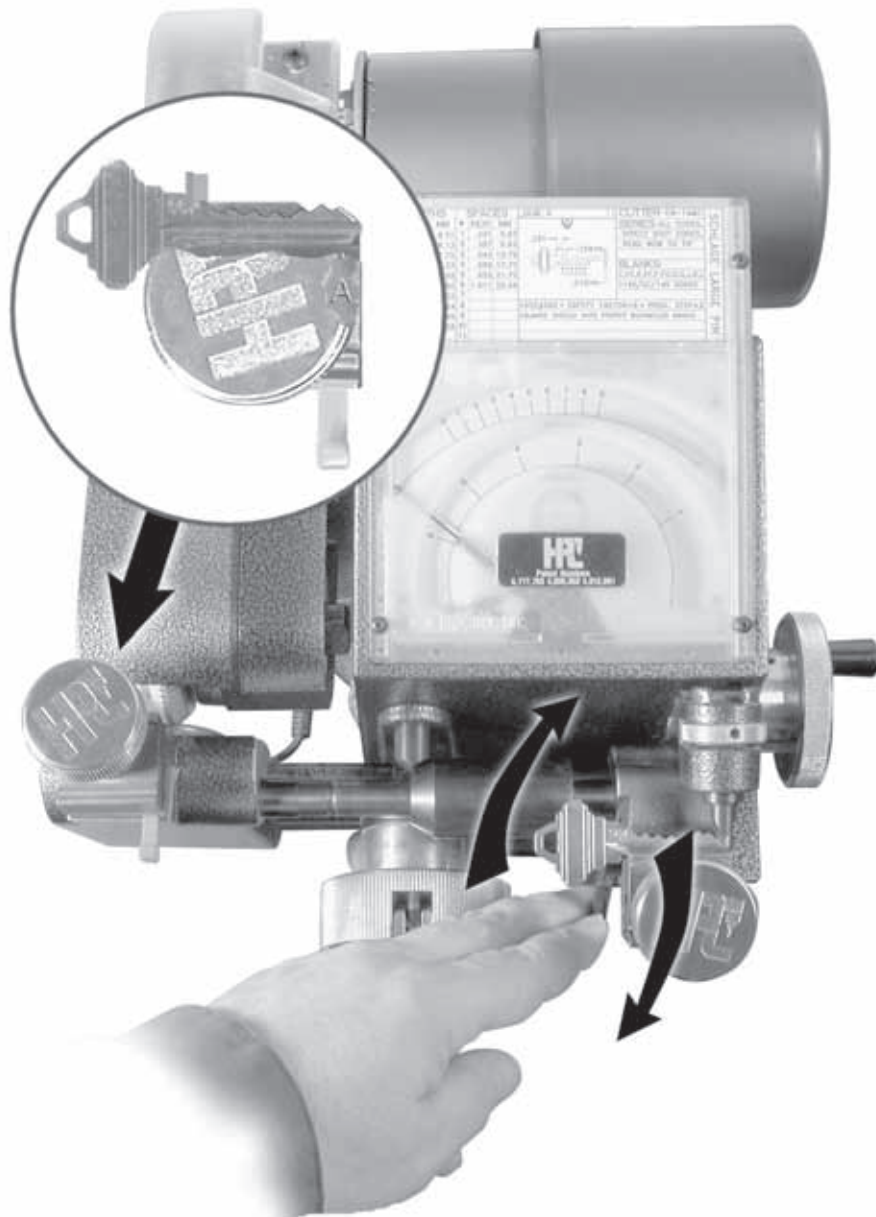


Loosen the four set screws. Gently move the carriage to the right or left, as needed so that the tracer engages the center of the cut. Tighten the set screws.

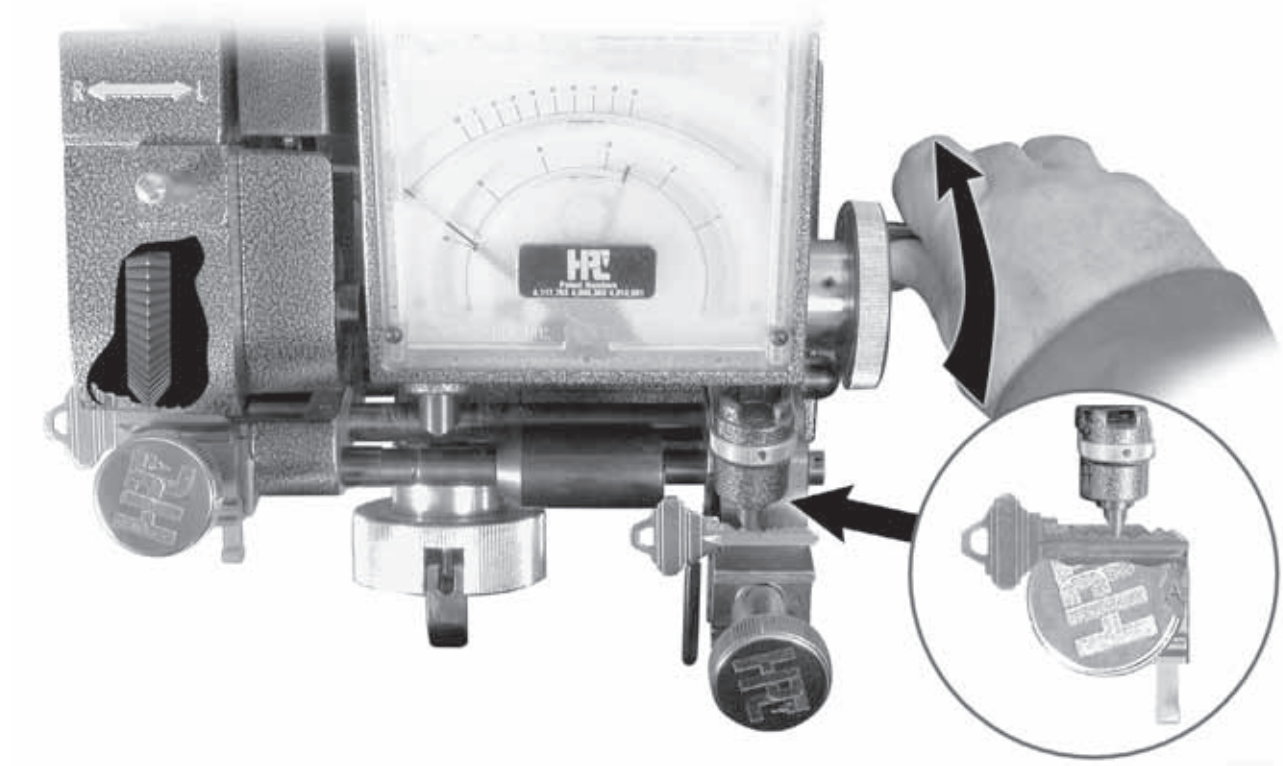
7.5 Shoulder Gauge Calibration (for Duplicating):



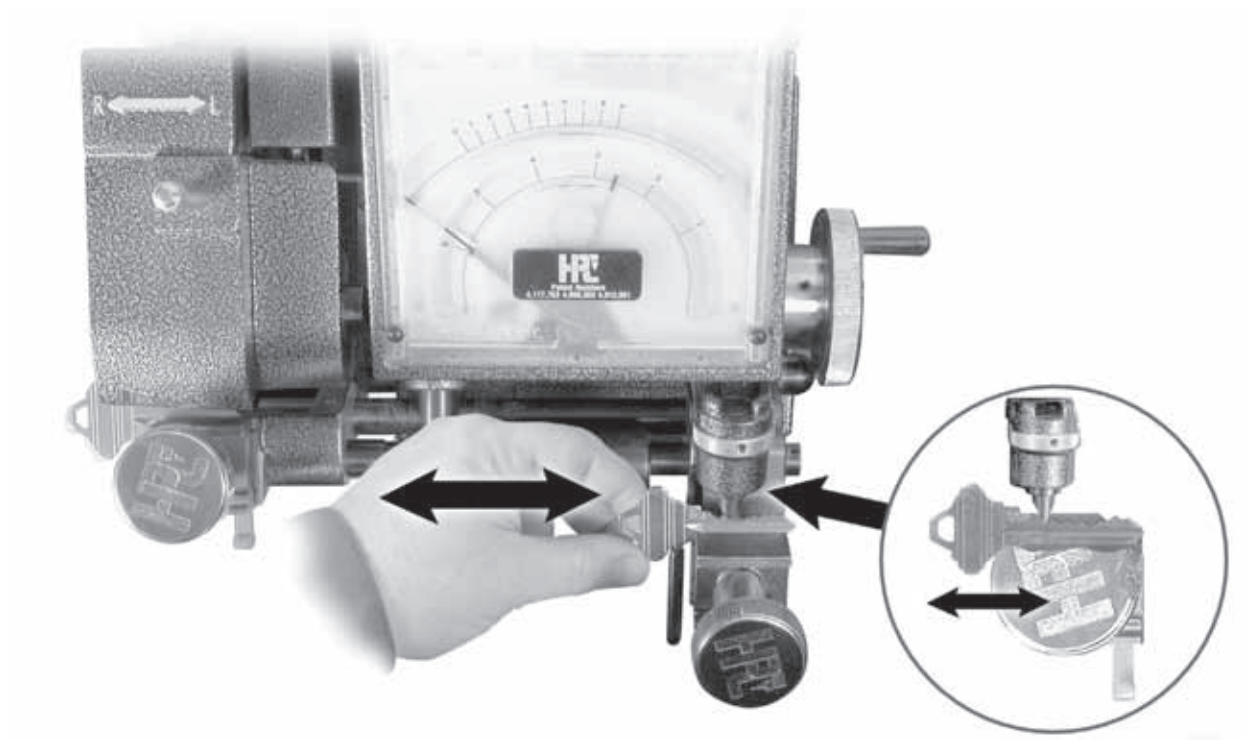
Load two identical factory-cut keys, preferably with deep cuts in the first position (such as Schlage).



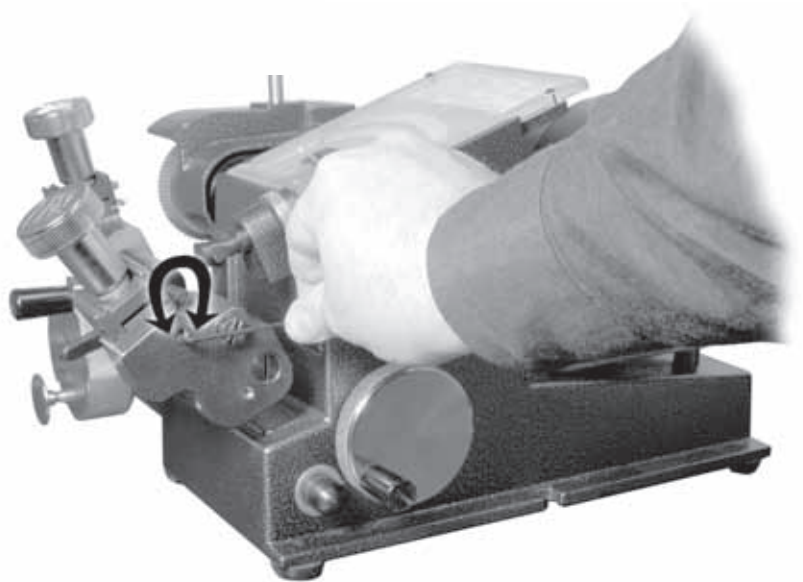
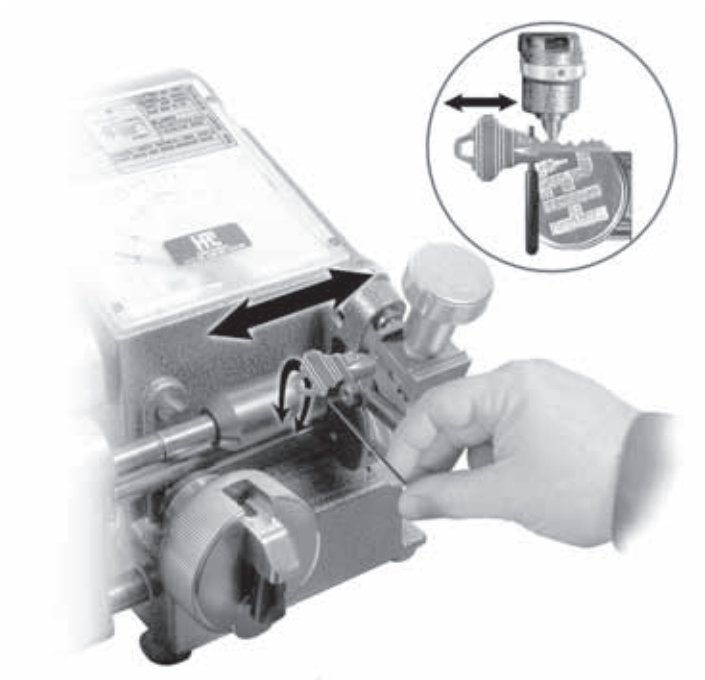
Gauge the keys at the shoulder.



Position the carriage so that the cutter is at the center of the cut.
Check the key on the tracer side.

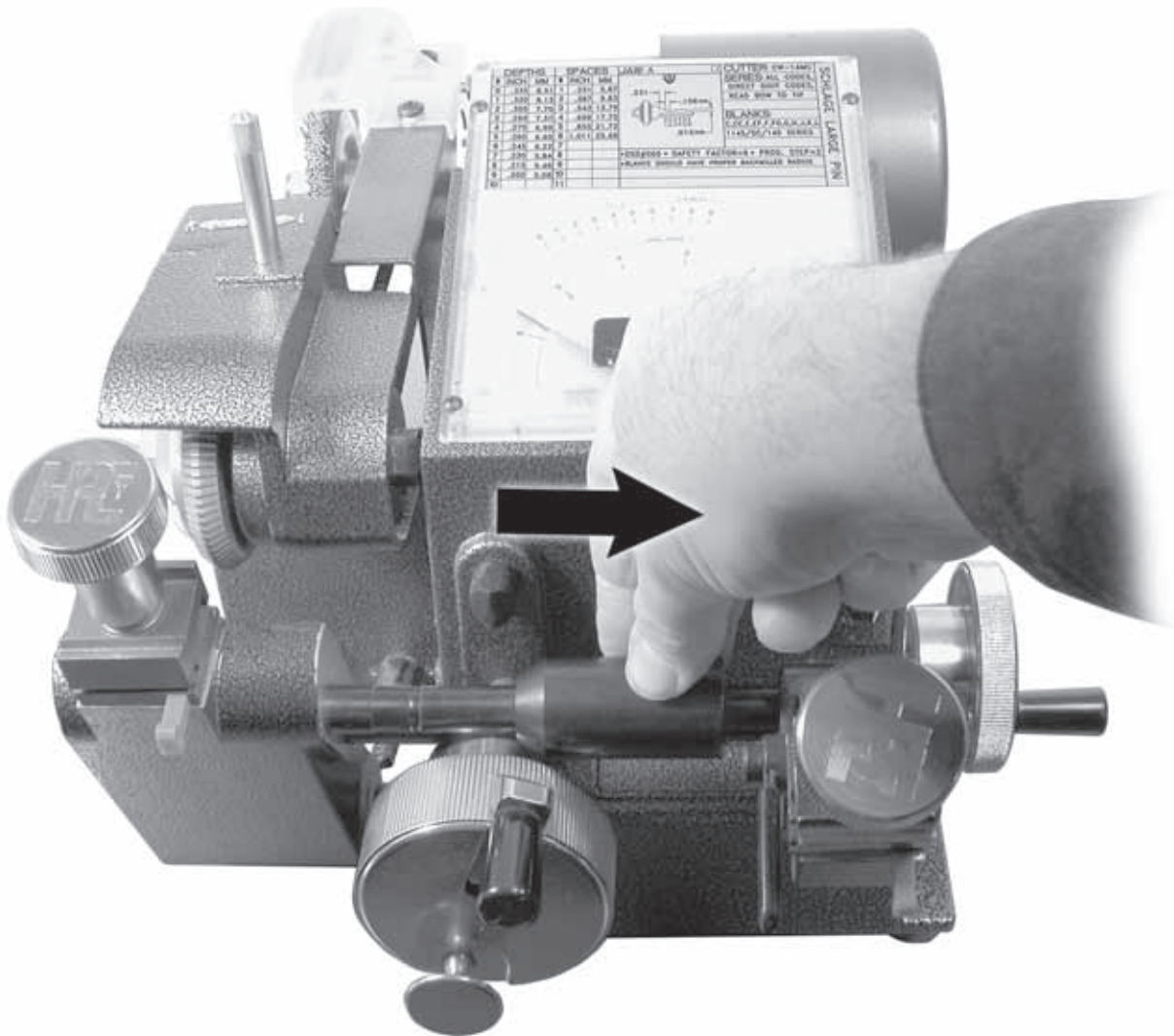


If the tracer is at the center of the cut, the shoulder gauge calibration is correct. If the tracer is not at the center of the cut, move the *key* so that the tracer is at the center of the cut, and move the shoulder gauge accordingly (so the gauge is properly aligned at the shoulder of the key).

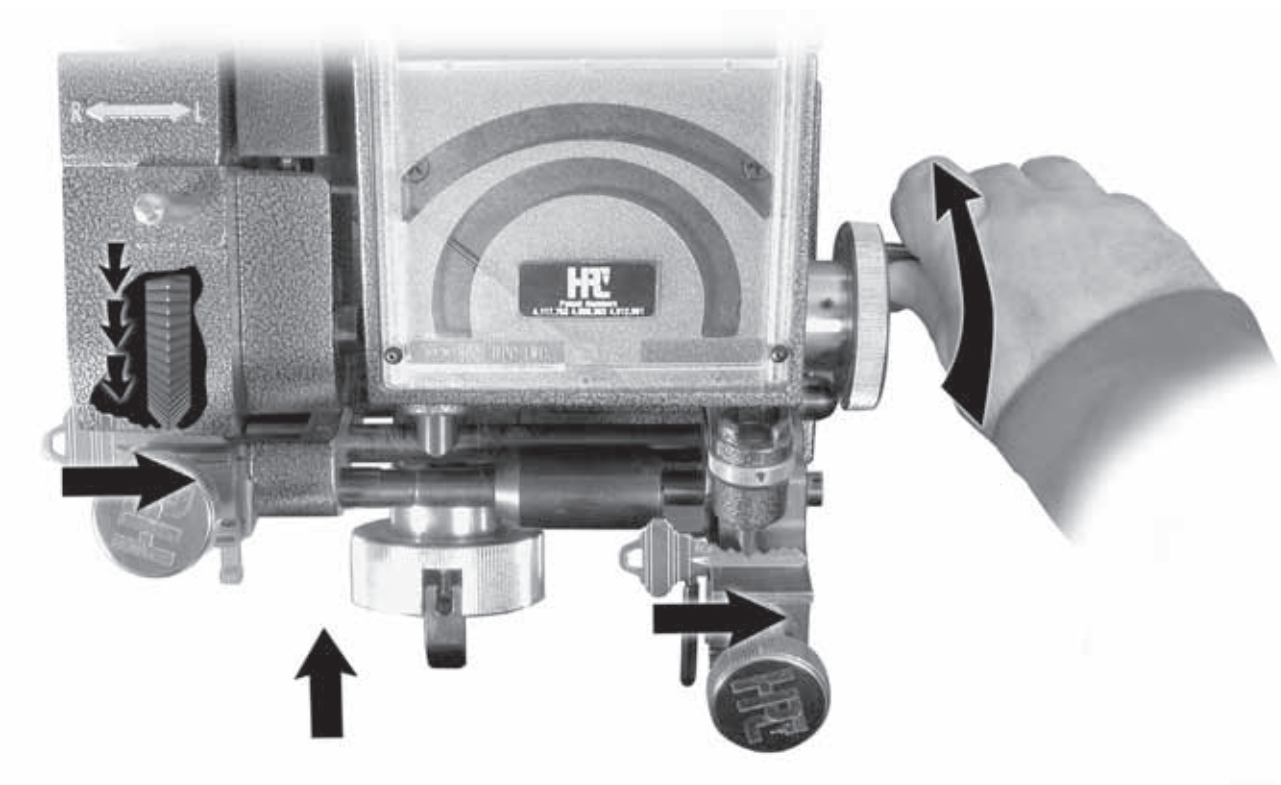


To move the shoulder gauge, loosen the set screw on the right side of the duplication carriage. Then turn the Allen screw on the shoulder gauge to move the gauge to the proper alignment. Turning the screw clockwise will move the shoulder gauge to the right. Tighten the set screw.

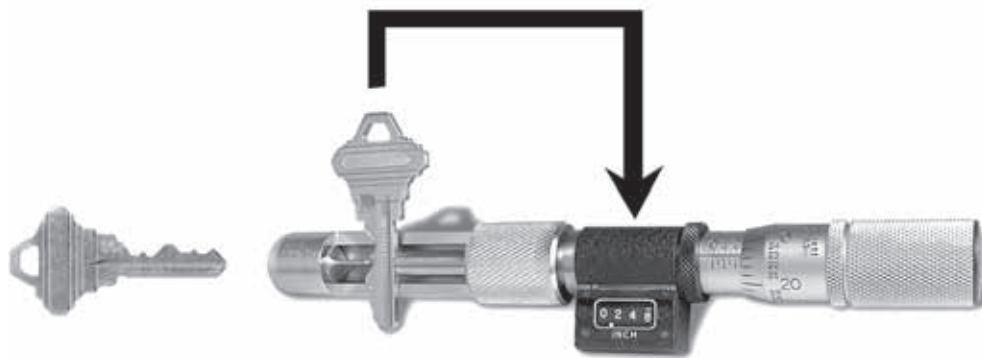
7.6 Depth Calibration for (Duplicating):



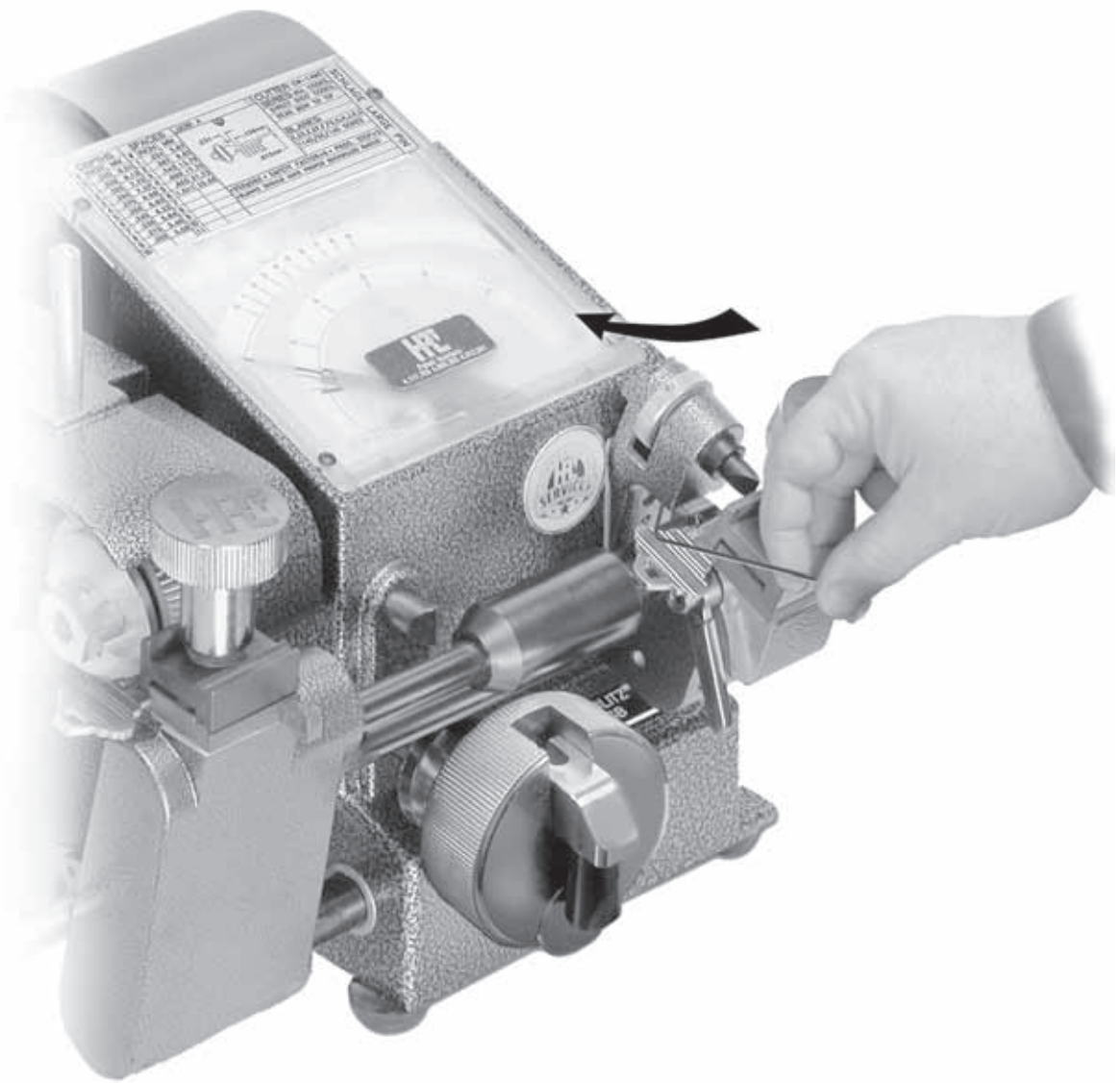
Set up your machine for duplication (as described in Section 5.0).



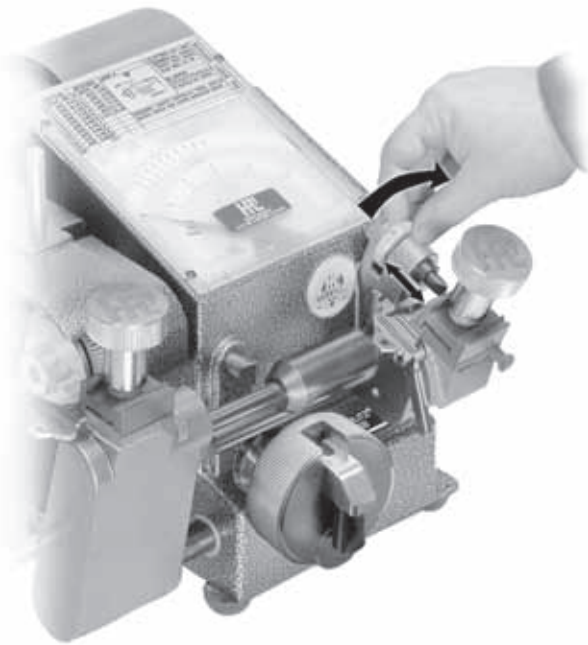
Duplicate a key (we suggest using a code cut key from which to duplicate).



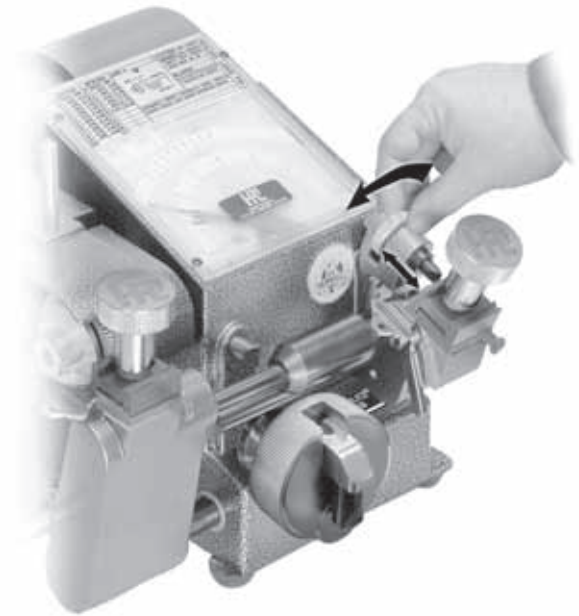
Measure the cuts of both keys and compare them. If the depths of the duplicated key are the same as the original key, then your machine is in proper depth calibration for duplication.



If the cuts are not the same: turn off the machine first. Then loosen the depth adjustment screw with the supplied Allen wrench.

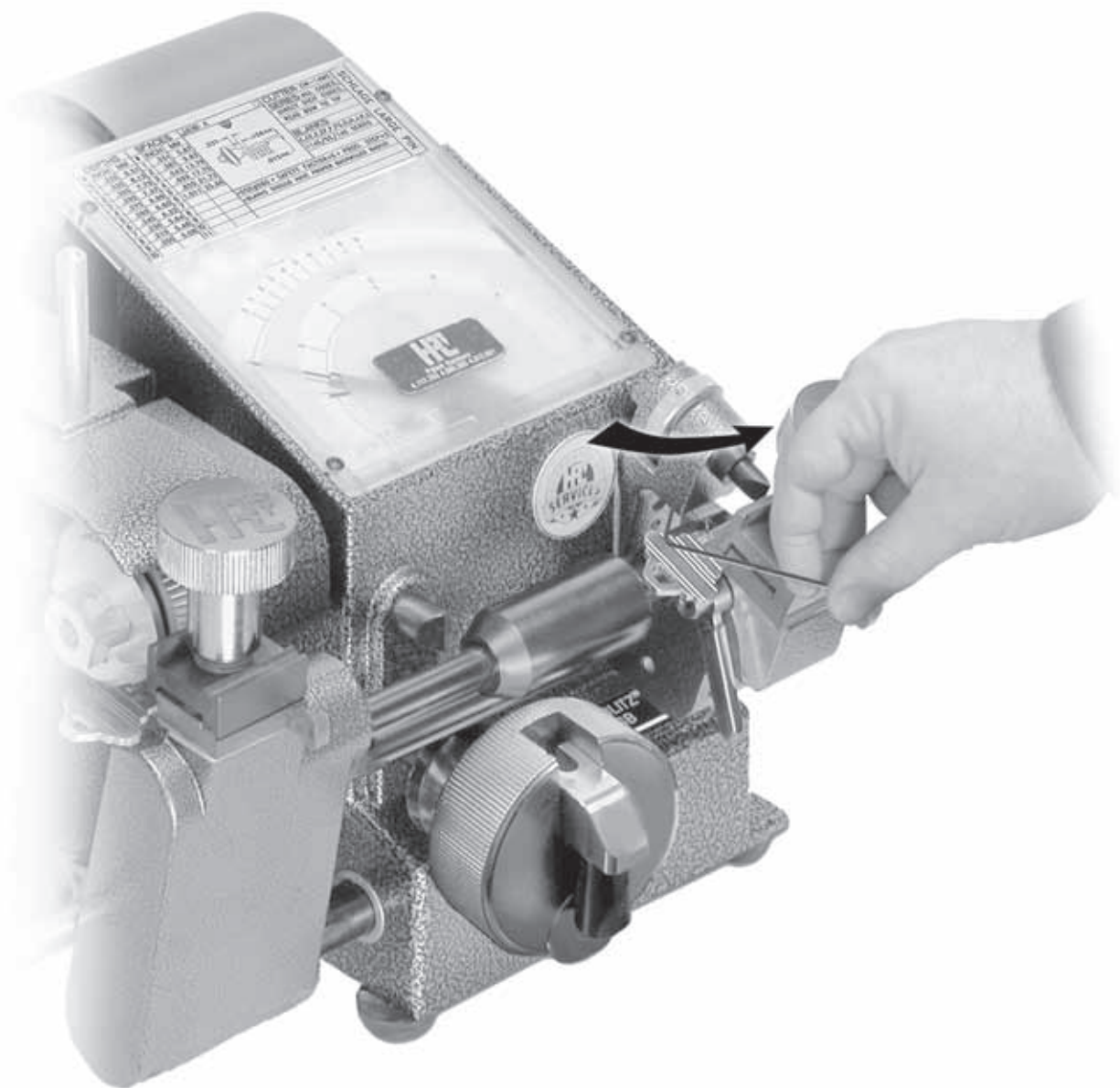


Too deep?
Turn clockwise.



Too shallow?
Turn counterclockwise.

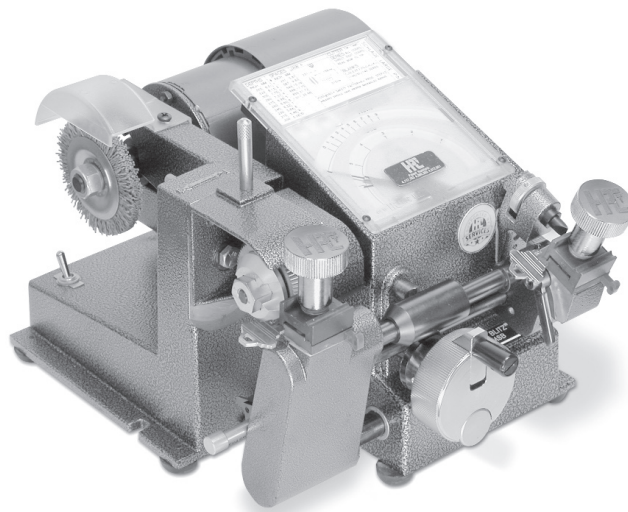
To correct a cut that is *too deep*, turn the depth adjustment knob clockwise for a shallower cut. To correct a cut that is *too shallow*, turn the depth adjustment knob counterclockwise for a deeper cut. Duplicate another key. Then measure the depths and compare to the original key.



If the measurements are the same, retighten the set screw.

8.0

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 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 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 cloth 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. Refer to Section 7 for Calibration Procedures.
- 9 -DRIVE BELT - The drive belt 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 Switch Blitz™ Machine is fully guaranteed for one year from the date of purchase, against factory defects in material and workmanship. Mail the Registration Card to HPC immediately, to validate your guarantee. Should your machine require factory repairs, contact the HPC Service Department.

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.

HPC, Inc.

Tel: 800.323.3295 (available from the USA and Canada, from 8:00am - 4:30pm Central Time,
Monday - Friday)

Tel: 847.671.6280

Fax: 847.671.6343

Email: hpc@hpcworld.com

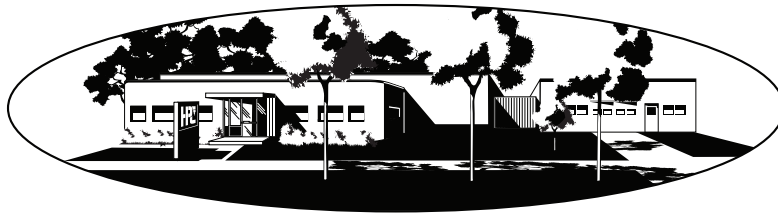
HPC SERVICE CENTER

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: **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, please call the Service Center for a Repair Order Number. Pack the machine securely in a box strong enough to prevent damage during shipping (the complete original packaging if possible). 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 COD. 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 COD 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 COD 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.

Expect Quality...



Demand HPC.

9.0

EXPLODED VIEWS AND PARTS LISTS

